

# RURAL WORLD

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## Sorgo Department.

The Rural World is the only journal in the United States having a special department devoted to syrup and sugar making from sorgo.

### Central Sugar Factory and a Proposition.

BY I. A. HEDGES.

There is a decided tendency to advance the syrup and sugar operations to a larger scale, and in most cases to the central system, similar to the cheese factories and butter dairies. It will be perceived that this plan is being adopted in Louisiana, as stated in the letter from my old friend, Dougherty, in another place. The business, as he says, of culture and manufacture is directly different and calls for quite a different study. I have had occasion to answer many inquiries on this subject since our late meeting, and, inasmuch as this matter is claiming much attention, I will submit my views measurably as contained in a correspondence with an organization, in Rice Co., Kas., known as a cane growers' association. They propose to plant and cultivate such varieties of cane as are best suited to their locality, to the extent of 500 acres, more or less, and deliver the same in good condition, with leaves and seed attached, but well cured and bound in bundles. The manufacturing company to buy the same by weight, paying \$2 per ton. This will complete the planter's contract. It will be observed that the labor of stripping and topping is dispensed with on the farm, and his (the farmer's) land left clean for the next crop. Should ratoons start up, cultivation is unnecessary, and, in many cases, another crop may be realized, or at least a fair crop of first-class forage may be obtained, which may be cut with a mower or dropper reaper, which should be set high enough to clear the old stubs. If this is well shocked up it will serve as feed most of the winter. I refer to this now lest it is overlooked by those making arrangements for the future—we must utilize every feature of this valuable crop. I return to the subject of this communication. The manufacturer must provide his works to as fully utilize the product of the planter, as is suggested for the latter. He first clips off the seed tufts freely and then grinds the canes with the dry leaves, having a mill of ample capacity to do it well. The leaves assist to make fuel with the residue of the pressed cane. He makes his fires for steaming or boiling the juice, as the case may be. The skimmings and washings of his pans, tanks, etc., are turned into suitable reservoirs and the seed tufts and scattered trash all thrown in the hot sugar house slop (so to call it), which will soon become the most desirable hog or cattle feed that can be produced from any known crop. That manufacturers can realize a good paying business, the following calculations will prove; and I am not charged with over-estimating on this subject:

Each ton of cane will make 12 gallons of 12-pound syrup, and each ton will afford 100 weight of seed, exclusive of the spindle and fool-stalks of the tufts, all of which are largely nutritious. Now, by analysis, we learn the seed to possess 64 per cent. starch, and then add to this the sugar in the cane, as well as the abundance of vegetable gum and green herbaceous matter, and this feed will make as much pork or beef as the same weight of corn, or, in other words, each ton of cane will afford material to produce 20 pounds of pork. Now, if a works of 40 tons per day capacity is taken as a basis, we can estimate as follows: 12 gallons per ton, 480 gallons, at 30 cents, \$144; 20 lbs. of pork to each ton, 40 tons, 800 lbs. at 3 cts., \$24; daily total, \$168.

Expense: 40 tons of cane, at \$2 per ton, \$80; 12 men, at \$1, and 3 hands, at \$2, \$18; interest on \$10,000, at 6 per cent., \$20; incidental, \$2.20. Total, \$102.25. Net daily balance, \$65.75.

I have rated the prices of syrup at 30 cents, which is low enough to cover cost of barrels, which will be about 3 cents per gallon for the best cypress (and there is no other fit to use). If the works are run 100 days, as they can be on the range of Missouri and Kansas and south, the profits will amount to over \$6,000. If they are day and night, an economy of nearly 10 per cent. may be realized.

It will be observed that I base my estimates on syrup only, which I do because that is a settled certainty. If sugar is a result, then we are better off.

I do not favor new beginners starting out upon a sugar basis; it may do when you have tested machinery and experienced operatives, but the first season had better be devoted to the primary lessons, and then a saving on the first cost of the works may be put on the second season, as sugar-making calls for many fixtures not required in a syrup works, although all the syrup apparatuses are needed in sugar-making. This company referred to is in the same position of many others, and are looking eastward and to our association for co-operating energy and capital, and it is just and proper they should. Our organization is based upon a broad platform, and, as one of its officers, I can say that whether it is in search of new varieties of cane, new methods to work or capital to help the producer to develop his crop and work it up, I consider each and all alike important, and I am pleased to know that our corresponding secretary, Col. Colman (now breasting the inclement season in the far north), entertains the same views, and will gladly respond to inquiries from either source. Thus is one feature of this business more favorable this year, viz: The early inquiries, that is right. The loss from being too late has always been severe. Manufacturers make such large works only upon contracts, and time is required to fill orders.

### Legislative Aid for the Sorgo Industry.

COL. COLMAN: The time has arrived when, in the writer's opinion, to insure the full and complete development of the sorgo sugar industry, the Legislatures of the respective cane growing States must extend to it their prompt and generous aid. The pioneers in the movement have heretofore been sailing against wind and tide. They see land in sight, but their strength is failing. They have shown their faith and endurance by their works. Pioneers in nearly all new enterprises are poor men—in this one especially so. Experiments which would, beyond a doubt, result in complete development of the industry, are likely to remain unfinished for want of means. Capital is timid—justly so. It is not business to invest money without reasonable assurance of fair dividends in return. Let the value of the sugar industry be established, and money will flow to it like water. But how can capitalists be expected to build central factories in every county of the different cane growing States, when the experts, competent to manage the same, can be counted on much less than the ten fingers? How can a sufficient number of experts then be prepared? Only by being trained at an experimental school established and maintained by the State. There every experiment of any promise should be fully tested. There the whole business should be taught practically—from the preparation of the ground and the planting of the seed, through the different stages of cultivation and manufacture—to the draining and handling of the sugar. For every dollar expended in such a school, would soon be returned to the State a thousand-fold. Every year of delay is so much lost.

France and Germany understood this matter when they established their governmental beet sugar schools, and the result is that they make nearly all their own sugar. The sorgo plan promises better than the beet. Chemists and practical men know that fact. If Jupiter will only help the poor fellows at the wheel, the car will roll along. I believe that, as a rule, our legislators are progressive men. They wish to aid in developing every legitimate and worthy enterprise.

I am rejoiced to learn that the Legislature of your State (Missouri) is about to be asked for such aid. I sincerely trust that they in their wisdom will grant it. I also hope that the other States interested will take the same steps. There will be raised up a corps of trained experts to go into every county, whose intelligent labors will soon develop the sorgo sugar industry into a triumphant financial success.

E. F. NEWBERRY, M. D.

### Sugar Works on the Agricultural College Farm.

The following bill has been introduced by Mr. Wray in the House of Representatives of the Missouri Legislature, and is now in the hands of the Committee on Manufactures, before which Mr. Hedges appeared and made a strong argument in behalf of the passage of the bill:

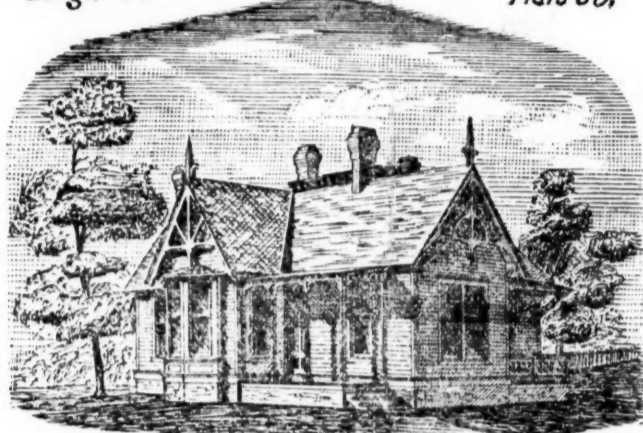
An act to establish a sugar manufactory on the Missouri Agricultural College farm.

Be it enacted by the General Assembly of the State of Missouri, as follows: Section 1. In order to afford facilities to the Agricultural Department of the State University of Missouri for educating the students in the processes of making sugar out of the product known as sorghum, it is made the duty of the State Board of Agriculture to cause suitable works to be erected on the Agricultural College farm of the State University.

Sec. 2. The State Board of Agriculture, through its officers, shall select a suitable site for the sugar works, and submit plans and specifications, with bids for erecting the buildings and putting in

Design 43

Plate 60.



Perspective View.



Plan.

A Five Room Cottage.

We give in this design the floor plan and elevation in perspective of a neat little one-story five-room Gothic Cottage, built at Altus, Franklin County, Arkansas, for E. S. Whitmore, Esq. This building should stand a good distance from taller buildings, on a large lot with eastern or northern front, and, if occupying a corner lot in a village, should be on the southwest or northeast corner of the street, thus giving eastern or southern sun to the parlor or sitting room, dining-room and kitchen, which are the apartments of a building longest occupied by a family living in a small house. By referring to the floor plans, it is readily seen that the building is compact and economical in construction, and convenient and exclusive in arrangement, thus giving an entrance to each room from the halls, without any undue waste of space, and is supplied with fine light and ventilation through windows on two sides of all rooms, and opposite doors with

machinery, to the Governor and State Auditor, and when approved by them, the contracts shall be awarded for such buildings and machinery.

Sec. 3. The State Board of Agriculture shall have authority to appoint a competent person to superintend the erection of the buildings, at such salary as may be approved of by the Governor and State Auditor.

Sec. 4. When completed, the works shall be under the control and management of the State Board of Agriculture, and it shall be the duty of said board to publish with its annual report a full and detailed statement of the experiments with the various varieties of sugar canes.

Sec. 5. For the purpose of erecting the buildings and putting in the machinery referred to in this act, there is hereby appropriated out of any money in the State treasury not otherwise appropriated, chargeable to the revenue fund, the sum \$15,550. No part of this sum is to be drawn from the State treasury except upon requisitions drawn by the president of the State Board of Agriculture and approved by the Governor and State Auditor.

### Sorgo Making in Wisconsin.

COL. COLMAN. We have been constant readers of the RURAL WORLD since last February, and shall wait it another year, sure.

We find much in it that interests us, especially in the sorghum department, as we have been in the business for the past eighteen years, not missing a single one. We have made from 400 gallons up to 4300 gallons the last season, and should have made about 5,000 had we not broken our mill just in the rush of grinding, which stopped work six days, which was perplexing.

We have never used any ingredients whatever. Could sell all that we could make; and our syrup compared favorably with that which was clarified; so we kept in the same old track. Our new mill from Rockford did splendid work. The first sixteen days, after setting up the new mill, we made 2,700 gallons, working nights part of the time. Four men in the daytime and three at night is a great deal of help. Our pan is about 18 feet long; the bottom is 40-inch boiler iron, weighing 600 pounds; sides of wood 8 inches high, with a partition in the middle, lengthwise; with gate at front end, and finish on the opposite side of where it runs in. We have used several different kinds, and this is the best that we ever used, and the least work to attend it.

### Wisconsin Cane Growers' and Manufacturers.

The annual meeting of the "Southern Wisconsin Cane Growers and Manufacturers' Association" will be held at the Bidwell Hall in Palmyra on Thursday and Friday the 17th and 18th of February 1881. The following, with other subjects of interest, will be discussed:

1. What soils are best adapted to the most successful growth of the cane crop?
2. The best method of preparing the soil in order to secure the most successful yield.
3. To what extent should fertilizers be used, and what kind?
4. The best kind of seed, and the manner of procuring it?
5. The time for planting and the best method of doing it?
6. The best method of cultivating sugar cane?
7. At what stage of development should cane be harvested, and manner of doing it to secure the best and greatest amount of syrup and sugar?
8. Will it pay to strip cane?
9. When should cane be worked after harvesting, and the best method of keeping it from fermentation?
10. Best method of manufacture?
11. Can it be made profitable to raise cane for sugar or syrup—and the ordinary yield per acre?
12. Should we be dependent upon other states for sugar and syrup when it is demonstrated that we can produce a sufficient for our own consumption?
13. On buildings mills evaporators and necessary fixtures to constitute the most practical manufactory?
14. What the prospects for a whole-sale market for the sale of syrup manufactured from sugar cane grown in our state?

All persons east, west, north and south who are interested in this growing enterprise in the north west, are cordially solicited to attend and aid in the discussion of the topics that may then and there be presented for the benefit of all concerned.

It was in the firm belief that through the mutual exchange of ideas regarding methods pertaining to the cultivation, growth and manufacture of cane into syrups and sugar that all interested in receiving a more or less extensive knowledge of just how to accomplish the work most successfully, that this association has been organized, and may the result of the coming meeting demonstrate that the intent and object shall have been fully realized. Let the cane growers and manufacturers far and near come out and let their light shine. The best of accommodation at the Bidwell House at reasonable rates.

O. P. Dow, President, Palmyra.  
L. B. GREEN, Hebron, Secretary.

### Mississippi Valley Cane Growers' Association—Continued.

MORNING SESSION, DEC. 23, 1880.

Mr. Hedges said: We did not do ourselves justice yesterday in going on 'Change. I will suggest that we go on 'Change again to-day, and that each member take his sample with him. It is customary with merchants when they go on 'Change to carry their samples with them. You present the glittering, golden sugar, and gentlemen, they will listen to you right away. So let us go and take our samples.

Mr. Stimpson moved that the convention adjourn sine die at 12 o'clock. Carried.

Mr. Hedges—We have an organ now—the RURAL WORLD. So if any of our committee's reports do not come in in time, they can be published.

Mr. Hedges wanted to know whether it were best to appoint a time for the next meeting or not.

Col. Colman thought that the matter had better be left to the executive committee, since to appoint a time now might conflict with other meetings.

Mr. Hedges thought that the next meeting had better be fixed at an earlier date, so as to give him more time to collect data for his book.

Mr. Allen thought the annual convention should be delayed so as to give other associations an opportunity of meeting and appointing delegates to this meeting.

Mr. Allen read the report on varieties of cane, which was adopted. It was as follows:

### VARIETIES OF CANE.

The subject of the varieties of cane, to which your committee has been directed, beg leave to submit the following report on varieties which have come under our personal observation, and which we consider best adapted for sirup and sugar.

The Early Amber, which has now become generally known, and which, so far, has proved to be the earliest, is very valuable for its light colored sirup, rich in sugar, but has some objection as a general crop south of the 40 parallel as it deteriorates rapidly after maturity.

Similar to the above is a variety called Early Hybrid, ripening about five to ten days later. It is a large cane and well adapted to poor soil, but on rich soil it is liable to lodge. It is rich in sirup and sugar. It is similar to the Amber.

Next in the order of ripening is what we in Kansas have christened the Kansas Orange. It has been grown in Johnson Co. for several years, and has proved itself superior to the Amber in point of yield and quality of sirup—200 gallons of sirup being a fair yield. It ripens about ten or twelve days later than the Amber, and produces one-third more seed. Stalks from 1 to 1½ inches in diameter, and from 7 to 9 feet high, and standing up well. The sirup is very bright and granulates freely. It is very similar in many respects to the Early Orange, differing principally in time of ripening, yield of seed and color of canes, which are green, shading to purple.

Next in the order of ripening is the Early Orange, being from fifteen to twenty days later than the Amber, and yields from 50 to 75 per cent. more. Its sugar is superior, as the examples on exhibition prove, and the results more definite than any of the old varieties. Its yield of seed is comparatively small. Stalks are large and of a yellow color, and it stands up well.

This variety and its twin brother, the Kansas Orange, we cheerfully recommend for the main crop in the latitude of 40 and south, and for trial north of that.

From a report of Henry B. Richards, of Lagrange, Texas, we learn that the indications are that it will mature for two or three years, like the ribbon cane, which makes it very valuable in Texas.

For late cane, the Honduras fills the place. It will ripen in the latitude of St. Louis and south, but cannot recommend it north. It is a very large, productive cane, both in sirup and sugar.

Your committee would recommend that all cane should be planted early, and the season lengthened out by different varieties. With the above it may be prolonged from two to three months.

G. W. ALLEN,

C. M. SCHWAB,

C. P. HANCOCK.

OTHER COMMITTEE REPORTS.  
The next report was from the committee on "soils, fertilizers, etc." Mr. Price said that the committee asked for more time on account of the absence of Prof. Scoville.

Mr. Thompson suggested that the members try leached ashes on cane when they go home.

The committee on mills and evaporators reported that they were not ready to report. The committee on fuel and furnaces reported through Mr. Rugg. He said if he had boilers well adapted for the purpose he could run both engines with bagasse. The throat of the main draft was near the vacuum. Between the two bridge walls the grates run clear through to the ground. He drew a blackboard diagram of the subject. The grates are four feet long. The smoke was consumed to a great extent and the gas entirely. Never was troubled with sparks flying from the chimney.

The grate-bars were four inches apart, making it quite open, and it worked very well. The chimney was 24 feet high by 18 inches. The labor of firing with bagasse is one-half more than fire with wood. It was scattered and allowed to dry as much as possible.

The committee on steam-trains and fire-trains, through Mr. Leonard, reported that the committee had consulted only a few moments. The committee had concluded that for small works a fire-train could be started with about \$300 or \$400, while the steam-train would cost \$1,000 to \$1,500 to start.

They recommended that for small works and experiments a fire train was a very valuable thing. Afterwards they could, with

more experience, put in steam trains. A cord of wood was required to make 200 gallons of sirup, as has been stated by a member. He used a steam train that with a ton of coal, costing about \$2.70, they could make about 800 gallons of sirup. This was certainly more economical than the fire train.

Mr. Leonard gave a brief technical description of the steam train used by him, illustrated by a blackboard diagram.

[To be Continued.]

## Agricultural.

### Immigrants to Missouri not Ostracised.

COL. COLMAN: In the RURAL WORLD of a recent date I find a communication by Mr. Jacob Funck on the reason why emigrants pass through our State to the sandy deserts beyond, instead of settling in Missouri; and the reason given is, that northern people would be ostracised on account of their political opinions. As this seems to me so manifestly unjust, and so at variance with my experience since I came into the State, I have concluded to answer it.

Six years ago I settled in southeast Missouri, and as this section had always borne the name of being the worst part of the State, with respect to ostracism and general lawlessness, I have had a good opportunity to compare this State with other portions of the country.

I was educated in the north, and when I came here not only found myself at variance with the people politically, but also religiously, and as I did not pretend to hide my light under a bushel, I expected to be ostracised; but instead of this I have always been kindly and hospitably treated, and have found the citizens, with very few exceptions (and these few exceptions came from persons who pretended to belong to the educated or aristocratic class), willing to accord to me the same rights and privileges that they arrogated to themselves. In fact, I have said things in this portion of the State, in public, that, being a stranger, I would not have said in thousands of northern communities with impunity.

I have visited several of the surrounding counties, and have always found the people kind and hospitable, and willing to help me whenever it was necessary. I can assure any northern man that if he comes here willing to work, and do his share to help to develop the resources of the country, he need have no fear on account of his political opinions.

A great deal of grumbling comes from persons who hold prominent positions at home, and are used to being looked up to as an authority on most subjects by their neighbors; in fact, consider them little gods. These are disappointed because they cannot take the same positions here that they held at home, and straightway imagine themselves ostracised. But northern people must remember that the people of Missouri, as well as of other States, have local gods of their own; and because a man has been looked up to by his neighbors at home, is no reason for him to expect to be looked up to and bowed down to here.

If Mr. Funck, or any one else, will come to southeast Missouri and investigate for himself, he will find this bugbear of social ostracism vanish like mist before the sun.

LUTESVILLE, MO. LOUIS DEHLA.

### Illinois State Board of Agriculture.

The following are the officers for the present year:

President—Jas. R. Scott, Champaign.  
Vice-President—D. B. Gillham, Alton.  
Ex-Presidents—Lewis Ellsworth, Naperville; H. D. Emery, Chicago; J. P. Reynolds, Chicago; Geo. S. Haskell, Rockford; J. L. Moore, Polo; Samuel Dysart, Franklin Grove; Chas. Snoddy, Joliet; Emory Cobb, Kankakee; D. W. Nittum, Jr., Canton; E. B. David, Alton; D. E. Beaty, Jerseyville; J. W. Judy, Tallula; Wm. M. Smith, Lexington; Wm. Voorhies, Jr., Voorhies; E. H. Bishop, Edingham; B. Pullen, Centralia; D. Gore, Carlinville; J. M. Washburn, Carverville; and John Landgrain, Alton.

Treasurer—John W. Bunn, Springfield.

Secretary—S. D. Fisher, Springfield.  
Assistant-Secretary—Charles F. Mills, Springfield.

Will some of your readers please give me some information as to what time and what amount of line should be put on wheat in the spring?

W. W. BEAZLEY.

The chairman of the house committee on agriculture, reported to the house the agricultural appropriation bill. Among the miscellaneous items are the following: For the purchase and distribution of seeds, \$80,000; for continuing experiments in connection with the manufacture of sugar from sorghum, \$25,000; for continuing investigation relative to insects' injuries to agriculture, \$15,000; for further experiments in tea culture, \$10,000; for the erection of a new museum building in connection with the agricultural department, \$10,000; for reclamation of arid, and waste lands in the territories, \$10,000.



## Horticultural.

Edited by Geo. Husmann, Professor of Pomology and Forestry, Columbia, Mo. All communications for this department should be addressed to him as above.

### ORCHARDS.

Report of Maj. Z. S. Ragan for the year 1880, read before the Missouri Valley Horticultural Society.

The winter of 1879-80 was a very mild and pleasant one, and fruit buds nearly entirely passed through safely, so that all our orchards appeared as one gorgeous bouquet of blossoms. The spring also was favorable, so as to admit a full set of fruit on nearly all varieties and trees that were of suitable age to bear, and many kinds set an over-crop.

Aside from a good crop of small fruits, cherries were very fine and the crop very abundant. May Duke bore a better crop than usual, and were marketed the last of June. Early May followed, and were very abundant, and were the principal or leading cherries for our market. Yet, many other kinds, in greater or less quantities, found their way into our markets. It may not be out of place here to state that during the main ripening season the notion prevailed that, inasmuch as there was a very large crop, most of those wishing to supply themselves would get them at still lower prices, before they were aware of it was too late to buy even at advanced prices. It is to be regretted that this is too often the case with most of our fruits, greatly to the disadvantage of both producer and consumer. It may be hard to correct this evil, unless our people are educated in the school of ice men, who make it a rule to avail themselves of the first ice that is formed, lest that may be their last opportunity.

Before cherries were gone our new early peaches began to ripen, such as Amsden, Alexander, Early Beatrice, Early Louise, Early Rivers and Wyandotte Chief. These all seem to have descended from Hale's Early, and coming in much earlier than their parent, and also in advance of our former kinds of cultivated peaches, may be considered a very valuable acquisition to our list of market fruits. Following these, we have such as Foster, Golden Empire, Yellow Frees (doubtless descended from Early Crawford) and Chinese Cling. The latter is a white clingstone peach, which, if its first specimens are a sample, bids fair to be very valuable. Time and space will forbid mention of the many popular common kinds running through the usual season; but, in concluding remarks on this, the most popular of all fruits, cannot do justice without also calling attention to some of the new late varieties that fruited with us the past season, to-wit: Keyport White, October Beauty, Salway and quite a number originating from seeds of Heath Cling, some of which are larger and others later. I cannot attempt to describe all of these, but will name one that, from its late ripening, must claim a place in our list of fine peaches, viz: Aikin's November. It is a white free-stone, with a faint blush; a shade smaller than its parent, Heath Cling; has white, firm flesh, with small seed, without any gum and fair to the seed, and will be fine for canning, preserving and pickling, and may be held for some weeks after the peach season.

I have also two new seedlings, originated from seeds of Smock's Free—one a cling and the other a free—both large and good and coming a few days after the parent and a few days in advance of Salway.

If I have trespassed upon the time of the meeting with the peach, I may claim indulgence from the fact that our people are either educated or naturally take to peaches, as the duck does to water. Everybody seem to eat peaches! They commence with the earliest ripening to eat on throughout the season with that avidity that would indicate that they expected none the next year.

Along with our peaches, the past season, we had one of the best crops of pears that has been grown for many years, if ever before, in this country. Yet, from the great amount of fruits of all kinds pressed upon the market, that price of all delicacies did not command so good a price as heretofore; yet, when peaches fail, they will come to the front again.

It is to be regretted that we are not exempt from that dreaded malady, the blight, which made its inroads in many of the finest orchards the past season.

More plums made their appearance than common, but the bulk of them were Wild Goose and Miner.

The apple crop was simply immense, and from the superabundance throughout the land, prices, of course, ruled low, and for the want of a better market, too many of our people suffered their fruit to go to waste, thinking it would not pay. A great mistake indeed, as present prices now indicate. The past season has taught a lesson that all who grow fruit should profit by.

If we are correct in our observations, it has been those persons who have industriously and closely followed up and husbanded and accepted the daily market, that good or bad, that have obtained remuneration for their fruits; while, on the other hand, those who are growers, "that the market is overdone and that fruit will not pay," etc., have nothing to show for their crop. May they learn wisdom by reading horticultural papers and attending horticultural societies.

Should our country be favored with such abundant crops in future, it will be wisdom to strive to be prepared beforehand for drying the perishable and storing the keeping kinds for winter and spring market. It is a lasting shame that, with our immense crop of apples, our markets are so soon supplied by apples imported from other States, while ours are sold at from 20 to 30c per bushel; and now, within so short a time, they are worth three times that money. Is it not time that our people were learning economy in husbanding their products?

The present winter, thus far, has been one of great severity. October brought with it a very cold snap, and November was unusually cold—so much so as to block up the Missouri river with ice, and the mercury ranged in different parts of the State from 4 to 10 degrees below zero. December followed with 10 to 20 degrees, and January has already put it to 15 degrees below zero, with but little else than cold weather since winter set in. Enough is already known of the effects of the severity of the winter upon the coming fruit to show that peach and apricot buds are all killed, and many of the tender varieties of cherries are more or less damaged. We may apprehend some damage among old peach trees, such as bore heavy crops of fruit. There is one thing, however, that will be in our favor; that is, the fall was dry and caused trees to wind up their growth and harden their wood, except late rains induced some trees to force out a bunch of leaves on their terminal buds, and some trees even bloomed. Yet another circumstance is unfavorable—i. e., the earth is exceedingly dry deep down, affecting our springs and wells. When this is the case, severe and protracted cold has set hard with fruit trees and plants, especially when the ground is exposed, without any mulching or protection.

Where I have been traveling through Illinois and Indiana, for the past three weeks, so far as I examined young peach, quince and Heart cherry trees in the nursery were killed, and the bark on older trees more or less colored. The cold there was several degrees colder than here, and they had from six to ten inches of snow. Whether the snow was in their favor or not, is a question that I am unable to solve.

From what examination I have been able to make since my return, I do not find the wood on my young peach trees damaged, and take it for granted, if they are not injured, that other trees may escape serious damage.

### Seasonable Hints.

EDITOR RURAL WORLD: Now that the days are beginning to lengthen and the sun to draw nearer and nearer to us, we can see our plants throw off their lethargy—many of them putting forth new leaves and some expanding their blossoms. But while all these things are going on to cheer the heart of the flower-lover, now is the time when his eyes and hands must be quick to detect and destroy the various parasites which infest flower plants, robbing them of their sap and soon causing them to appear anything else but things of beauty. In warm rooms the green fly is almost sure to make its unwelcome appearance, but it can be exterminated by tobacco smoke. The red spider, too, will make its presence known by the brown, shriveled appearance of the leaves, and unless the air of the plant room is kept moist by evaporating water on the stove, will gain a stronghold. Mealy bugs will be found in the axils of the leaves of fuchsias, &c., and must be destroyed by hand-picking.

Air should be given on all pleasant days for at least a couple of hours, taking care, however, that the draft blows over the plants instead of on them. This makes the plants grow dwarf and compact, besides hardening the wood. I don't know why it should be so, nevertheless I find in the course of my visiting around that most people allow their plants to run long, gaunt, leafless stems, and wonder what can be the matter, they don't get any flowers. They seem to have a horror of using the knife upon their plants, and yet, if they could see it in that light, the petted plants will really grow better for having their heads cut off.

Let me illustrate: When we built our greenhouse last summer, we put in some stock plants of the fancy leaved geraniums. They were single stems and soon shot up to be about nine inches high, but there was no sign of seed branches. So one day we cut the top off of all of them, and in a few weeks there were three to four nice slips ready for propagating. The pieces we cut off were placed in the sand bed over the furnace, and soon rooted. In nearly every case we can root these cuttings more easily than the young wood, starting from the roots.

Fuchsias are gross feeders, and should never be checked in their growth more than to turn them into symmetrical shape, for they, as a rule, will grow straggling.

Re-pot plants into the next size in which they have been growing. If you have any sickly ones, wash all the dirt off the roots, and give new soil and clean pots.

Those who lost their plants in the recent severe weather are invited to correspond with us. As we have a surplus of some plants, we should be glad to send them to those who will send postage to pay for them. But as there are some who will take advantage of good nature and never refund postage, will send only to those who enclose stamps with the application.

A letter received a few days since from an earnest, working woman, leads us to ask others to follow her example, and in time become successful florists. She says she grows flowers because she loves them, but is too poor to buy choice kinds. She found a market last year for all she could raise, and this

season wishes to be able to supply all demands. She asks how she could pay rent, clothe and feed seven children, on ten shillings a day, without her flowers, and then says: "Please tell me the names of a few of the best flowering annuals."

The case before us has a similar parallel in the person of an estimable New England lady, who, being left a widow, was at an utter loss to provide for herself and child. While bemoaning her helplessness, a friend came in to procure a few flowers from her garden, and after obtaining them, tendered a dollar in payment. The widow could not believe flowers had such a pecuniary value, but was ultimately made to see that the greenhouse man might have asked twice as much for the same amount of flowers. That gave her an idea; so she read up all the floral literature she could procure, and succeeded so well in the growing and sale of annuals, that she determined to build a greenhouse with the money received from the insurance on her late husband's life. She knew nothing of the business, but found those who were willing to assist her; and it was not long until, instead of one house, she had seven greenhouses, each 100 feet in length.

But this is not telling the annuals best suited for cutting for bouquets. Will not attempt to name all that are worthy in this letter. In a future communication will tell how to raise them, but she or any one else may select twelve kinds of seed from those we shall name, and will send them for 25c. At the rate here given, it will barely pay the time to put them up and the material, but we want everybody to grow some flowers.

We name among others for bouquet making, asters, pansies, phlox, everlasting sweet peas, ageratum, bantonia, scabiosa, alyssum, mignonette, asperula, phacelia and nemophila. This selection gives a wide range of colors, and several of the varieties named have fragrant flowers.

Ainsworth, Iowa.

### Rabbits in the Orchard or Nursery.

EDITOR RURAL WORLD: Think we sent you this recipe last year, but it is very likely to be forgotten by many who read it then, while others may know nothing of it; besides, the subject needs calling attention to at this time. As far as we know, it is original with us, and we have found it perfectly reliable, cheap and easily applied.

Cut an apple into 16 or 24 pieces; cut each one of these pieces nearly in two, open it and dip the point of the knife into strychnine, so as to get from one-third to one-half the size of a wheat grain; wipe this into the opening, close it, drive a common pin through it; drive these pins lightly into the trees at a convenient height for Mr. Rabbit, and if he ever comes within sight or smelling distance of it once, he will never trouble you again.

Kirkville, Mo.

**Peaches for 1881.**  
EDITOR RURAL WORLD: If there will be any of the above fruit next season, it will be more than can be expected. Here, at Bluffton, the mercury was down to 26 degrees below zero, and for nights under 10 degrees below zero.

Not only is the fruit gone for the coming season, but there are some fears that trees of any considerable age will be damaged so as to be of little value hereafter. It will be well for those who have seed saved to husband them well, for there will be none gathered next fall. We were fortunate enough to secure several bushels for our own use.

Will some of our sweet potato men tell us how they have gone through the severe weather? Some report that their entire crop.

Bluffton, Mo.

**Fruit in Christian County, Mo., for 1881.**

HORT. EDITOR: Our fruit for next season, so far as peaches and most small fruits are concerned, is already disposed of. On four separate occasions this season has the thermometer been from 20 to 28 degrees below zero. Think a great many of the fruit trees are killed outright or so badly injured that their usefulness is a thing of the past; having been taxed to their utmost to mature the very heavy crop of the summer, they were in poor condition to stand the very severe freeze of November—24 degrees below zero. The ground here has been covered with snow for more than eight weeks, and it shows no signs of giving way yet. During the night of the 18th inst. it commenced sleeting, and continued until 12 m. yesterday, when it terminated in a light snow squall.

We cut from a post oak a small limb that weighed 5½ pounds; when the ice was knocked off, there was half a pound of limb left. So, you see, there were five pounds of ice to half a pound of timber; and this immense weight of ice has broken much timber and not a few fruit and ornamental trees.

We were looking forward with much interest for the further fruiting of the Keltner peach, that has so far given such fair promise as an early peach; but we will be compelled to wait until Boreas is in a more accommodating mood, so as not to nip our hopes in the bud.

Mr. Editor, if it would be allowed, would say to the tree planter to look a "little out" for if the nursery stock of the east and north has been injured by the severe cold, Missouri will be literally overrun with agents willing to dispose of it to the gullible at about double the price asked at our own nurseries for the same stock, true to name.

H. F. DAVIS.

Ozark, Christian Co., Mo.

We are really sorry to hear such discouraging reports from Christian county. Here, the thermometer has not been below 22 degrees, nearly all dry cold, and although the peach buds and those of some of the most tender grapes are killed, and Kittatinny blackberries partly injured, the other fruits are yet in very fair condition. Apple, pear, cherry, Turner and Thwack raspberries and Western Triumph blackberries all right yet, as well as all the hardier grapes. Strawberries are under the snow, and will of course be all right.

If it be true that "misery loves company," we hope to hear from all our

readers, what the effects of the cold weather have been in their section. Here, though very cold, it has been steady, no thawing and sudden freezing, and although the ground has been closed up for more than two months, we do not apprehend as much damage as if the weather had changed frequently, from cold to warm. Water is very scarce, and nearly all the cisterns are empty.

We would advise peach growers to shorten in their trees severely, leaving only stumps of the main limbs, of from two to four feet long. The peach tree, as we know from experience, has a tenacity of life which is truly wonderful, and trees which looked entirely brown and dead, have recovered again under this treatment, put out vigorous shoots and produced good fruit for a number of years.

Your caution against irresponsible tree peddlers is a good and timely one, and should be borne in mind by the planting public. Buy from none but reliable establishments, who will send sound trees, or none. HORT. EDITOR.

### Cumberland Triumph Strawberry.

COL. COLMAN: Although there are many contributions sent to your valuable paper about strawberries, their culture, merits and failings of the old, as well as the new—still, if you have a little corner to spare in the RURAL, we would like to put in a good word or two for the above variety, which we have had in cultivation for four years.

It is a very strong, upright, robust grower, with very large foliage, which protects the fruit against the hot sun; it has also remarkably strong fruit stalks, that hold the fine large berries all up from the ground—a very great advantage to the pickers. The fruit is of the largest size, to the last; bright scarlet in color; looks well on the market stands; fills the boxes quick; is of good quality and very productive; it blooms rather late, thereby escaping late cold snaps. Taking everything into consideration, we know of no better variety, either for home use or market.

Belleville, Ill.

### Wyandotte Chief Peach.

EDITOR RURAL WORLD: Would answer your correspondent who inquires about Wyandotte Chief. Have had something to do with giving it notoriety. Two years ago we visited the original tree in Wyandotte city, on the 19th of June, and found the tree loaded with luscious fruit, some of which measured 8½ inches. Secured some buds, and have been propagating it considerably. The tree was loaded with ripe fruit eight days before the Amsdens were fit for market. Of course, we thought we had a good thing. The tree was destroyed last fall, being dug up, and only young trees exist.

A number of trees were in bearing the past season, but they did not maintain the reputation of the parent tree as they were fully six days later in ripening than Alexander or Amsden. Possibly, as the trees become older, they may ripen up their fruit earlier than upon young trees. Whether earlier or later than Amsden, they will fill a place important to peach growers; it is a good thing, and no mistake. They can be had here at 35 to 50c, so that the price of \$1 per tree is entirely too high.

Rosedale, Kan.

F. Y. SINGER.

### Keeping Sweet Potatoes.

EDITOR RURAL WORLD: Friend Miller wants some one to give his experience in keeping sweet potatoes, and will here give mine if you think it worth anything. Have kept sweet potatoes for many years.

Put them in the greenhouse and keep them at a temperature of about 60 degrees, varying from 50 to 75. Put them on the benches over the flue from two to three feet deep; put a shade over them to keep the sun off.

We have never lost any from rot. We generally pick out the best and handle carefully; but last fall our crop was short, owing to the dry weather, and we had to take bruised ones. So far, we can see no difference in their keeping qualities. The cut part is crusted or dried over, and they are as sound as the balance, and, to all appearance, will keep for seed.

We find, further, that sweet potatoes kept so warm, do not rot after bedding out, and sprout sooner, as the most show signs of sprouting in the greenhouse. When kept too cold or in the ground, most all rotted with us after bedding out, in repeated trials.

Tipton, Mo.

G. ROSENHAHN.

A good hint for sweet potato growers, by which we hope they may profit.

HORT. EDITOR.

### Fruit Prospects in Iowa for 1881.

PROF. GEO. HUSMANN: Have this day examined the fruit buds of apple, peach, cherry and plum trees, and although the weather has been extremely cold (24 degrees below zero), they are all right so far. The tips of raspberries, both red and black, are dead; but the balance of the canes are yet green and alive. Grape vines still on the trellis are, as yet, uninjured. Did not examine my blackberries. My strawberries have a good covering of bagasse and some six inches of snow; so they are safe.

The apple crop of last season was very large here, and were cheap—50c per bushel. Don't know what the price is now.

Mr. L. A. Helt, an enterprising orchardist and nurseryman, near Afton, has 2,000 apple trees in his orchard and considerable of the smaller fruits. He selected his apples, put them in peck baskets in tasteful and attractive style, and was able to get 80c per bushel for them, while others had to work hard to get 40c per bushel.

Fruit growers, do you see the lesson taught here? Every one who owns

land in this part of the country takes enough interest in fruit growing to plant nearly all kinds that will succeed here; indeed, their eagerness for fruit has caused many to be woefully swindled by the brazen-faced and oily-tongued tree peddler; yet every one of the said peddlers reap a rich harvest, showing that the fools are not now, nor ever will be, all dead.

Mr. Helt keeps all the newest and best varieties for this latitude, at low prices, while the peddlers do a large business at from 15 to 50c each for the same varieties, and generally poorer trees.

E. S. KETCHUM.

Afton, Ia., Jan. 22.

### Winter Protection of Grape Vines.

A correspondent writes to us for our views on wintering grape vines in an elevated region; whether laying them down, or leaving them exposed with some protection around the roots would be the better way.

To this we can only reply that our experience leads us to prefer taking the vines down from the trellis and laying them upon the ground, and, if it be practicable, it is very advantageous to cover the vines with a few evergreen boughs. A variety of grape that will not pass the winter safely in this way had better be dug up, and a more hardy kind put in its place. There are a number of hardy vines now in cultivation which ripen their fruit early, and which will yield a good crop of grapes and ripen them thoroughly in a dry climate. We should expect to succeed with the Concord, Creveling, Eumelan, Telegraph, Champion, Wilder, Massasoit, Martha, Burnet, and Moore's Early.—Canadian Horticultural.

### The Sunflower.

In many districts in the West the traveler will see growing immediately about the doors of farm-houses beds of sunflowers. The belief of many is that the growing sunflower is a protection against malaria and a preventive of the low fevers of malarious districts. This plant, we believe, is made of small practical use in America. A scientific writer upon the helianthus says:

"Elsewhere the sunflower, if not admired, is esteemed for practical reasons. Many of our native aborigines make bread of its seeds. It is cultivated in the south of Europe sometimes as a field crop, the seeds being used as a food for cattle and poultry, and also for making oil, which is little inferior to olive oil; is burned in lamps and employed in the manufacture of soap. Meal and bread are said to be got from the seeds in Portugal, and these, roasted, are often substituted for coffee. The seeds are used like almonds for soothing emulsions, and in some parts of the Old World are boiled and fed to infants. The leaves are good fodder for cattle, the stems serve for fuel, and contain much potash. The different species of sunflower indigenous to the United States number some forty, scattered from ocean to ocean, and from New England to the Gulf. For a plant generally counted unworthy, as it is with us, it surely has many valuable uses."

## Forestry.

### Trees for Minnesota.

The Minnesota Horticultural Society, at its late meeting, adopted the report of the committee, recommending the following trees and shrubs for that State:

The committee on evergreens submitted the following list as best adapted for general purposes and as to preference in the order named: Scotch Pine, Norway Spruce, White Spruce, Fir Balsam, White Pine, Hemlock Spruce, Austrian Pine, Siberian Abor Vite, American Abor Vite, Dwarf Mountain Pine, Red Cedar, Blue Spruce, Prostrate Juniper and American Yew.

The committee on ornamental trees submitted the following list:

Deciduous—Cut-leaved Birch, Hard Maple, European Mountain Ash, American Weeping Ash and European Larch.  
Shrubs—Snow-ball, Tarbarian Honey-suckle and High-bush Cranberry.  
Herbaceous Plants—Aquilegia, Dyaletia Spectabilis, Astilbe Japanese, Lily of the Valley and Bee Larkspur.  
Climbers—White Clematis and Virginia Creeper.

### Trees and Health.

Everybody knows that trees take the carbonic acid thrown out in the breath of men and animals, separate it into component parts—carbon and oxygen—give back the latter to be used over again, and work up the former into wood and fruits.

It is also coming to be generally understood that forest trees do important service in promoting rainfalls, and in helping to retain the surface-water for springs, streams and general use.

It is also known that certain species, planted in malarial localities, help to render the latter healthy by somehow using up the deadly miasma.

It would now appear that trees growing near drains carry off the sewerage water. A gentleman, whose cess-drain was constructed just like his neighbors' and in the same kind of soil, had found it unnecessary to clean it out, while the others had to be cleaned out frequently.

An examination showed that three large trees, whose roots had penetrated into the vicinity of his second, or waste cess-pool, were clearly channels through which the waste all escaped.

Whether it was changed into plant-food, as is likely, or was exhaled through the leaves, in either case it was disposed of with equal safety.

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The RURAL WORLD is increasing its circulation most satisfactorily. The reduction of its terms to only \$1 per annum has given an impetus to its circulation we did not anticipate.

It is now the official paper of:

The Missouri State Grange.

The Missouri State Horticultural Society.

The Missouri Valley Horticultural Society.

The Mississippi Valley Horticultural Society.

The Mississippi Valley Cane Growers' Association.

The Minnesota State Amber Cane Growers' Association.

The Illinois State Cane Growers' Association.

It is always ready to lend a helping hand to the farmer in any and every branch of industry. Its highest merit is that it is strictly an agricultural paper, entirely eschewing politics, leaving that field to political papers.

We thank our kind friends all over the country for the good work they are doing in increasing the number of readers of this paper. We think no farmer can read it one year without feeling that no dollar he has expended during the year has brought better returns.

Mr. A. N. Cheyron, of St. Clair Co., Ill., writes us: "The wheat in this part of the country looks badly injured. I should think one-half of it is killed."

Our contributors will accept our sincere thanks for their kind favors. At this season of the year they have leisure to put their thoughts in writing, and we are glad they are doing it. If their favors do not appear in print, they are none the less appreciated. In due time they will be forthcoming. We have a large number of valuable articles on hand, and want more of them. All will appear sooner or later.

Now, friends, let us hear about the premiums for the annual free premium drawing, where each subscriber to the RURAL WORLD has one chance. Any person having anything to offer will please notify us at once what it is, and it will immediately appear in the premium list. It answers for a good advertisement of what is offered, as the name, postoffice address and article given will stand in the premium list till the 1st of April.

One of the most gigantic enterprises of modern times is that just announced by the Continental Railway Co., an association of eastern capitalists. They claim that they have made all arrangements for the building of a double track from New York to Omaha, by way of Chicago. The capital (\$100,000,000) they claim is already assured to build and equip the road throughout, and 30,000 laborers will be put to work at once at different points on the road. The managers state that they can conduct the business of the road profitably and at considerable reduction in the prevailing rates between the east and the west.

A review of the business failures in the United States during 1880 tells the story of good or bad times, perhaps, as plainly as can be told through any other source. Judging from the records, the Pacific States were worst off and the western States the most prosperous, while the southern States fared much better than their neighbors in the east. The figures are as follows: Pacific States, 1 firm in 72 failed; eastern, 1 in 118; middle, 1 in 161; southern, 1 in 131; western, 1 in 235; Canada, 1 in 63 failed. These figures show a marked decline in failures, in comparison with the records of preceding years, both in numbers and amount of capital involved. It must be admitted that last year was a remarkably prosperous one, as shown in the increased wealth and the great activity in public improvements and private enterprises. Prosperity was, indeed, widespread and gratifying. The industries—prominent among them railroad building, that had so long languished—were brought to life, and gave employment to idle capital and idle labor. All the railroads in the country were crowded with business, and handsome dividends accrued to the stockholders. Stocks of every description appeared to steadily grow more valuable, and capital, no longer timid, came to the relief of every legitimate enterprise. The country has been blessed with magnificent harvests, and afforded and gave rise to the high tide of prosperity that spread over the land.

## Sugar Works at the Agricultural College

A bill is before the Missouri Legislature for the establishment of a sugar works on the Agricultural College farm at Columbia, asking for an appropriation of \$15,000. In our judgment the bill is a wise one and ought to pass.

The people of Missouri are paying out annually about eight millions of dollars for sugar. The most of this large sum goes to foreign nations. Sorghum is perfectly at home in Missouri. Numerous tests of the juice by scientific experts have proven that the juice of this northern cane is as rich in crystallizable sugar as is the juice of the southern cane. The sugar is there, and farmers are getting it, more or less, wherever the juice is reduced to syrup. We saw one farmer—John F. Porter, of Red Wing, Minn.—roll in five barrels of beautiful sugar in the hall of the Minnesota Amber Cane Growers' Association, of his own manufacture, who one year ago knew nothing about sorgho. And so it goes; this man makes it, that man makes it, in large or small quantity. In our own State scores of farmers have made sugar, but just how they did it all of them could not tell. The trouble is, there are no experts to be obtained by the farmers who raise the cane. They want men who understand the business, and just as soon as they can get skilled men to run their works, the sugar industry will be put on a safe footing, and Missouri will make all her own syrup and sugar, and have it to send abroad as she now does her live stock, her wheat, corn, bacon, &c.

There is no school or factory where the sons of farmers, or the farmers themselves, can learn to manipulate the juice of the cane and make syrup and sugar from it. In view of the great importance of this industry to the State and nation; in view of the degree of success that has been already obtained by plain farmers, without any of the advantages of science, thereby showing that the cane contains sugar, and that they, in their simple way, are getting some of it; and in the further view that it is impossible to obtain the requisite skill unless the State affords the means—it seems to us that the Legislature will not be doing its full duty in furthering the great material interests of the State, if it fails to pass this bill.

The State now affords means, by departments in the University, to make lawyers, and doctors, and teachers. Can it not as well lend its means and influence to aid in the development of one of the most prominent industries of the State and nation? The cost is a mere bagatelle to a State with a population of over two millions, and with the great wealth they possess. The cost to the largest tax-payer in the State would not be half of that of a cheap cigar.

The great Napoleon, when he learned that sugar could be produced from beets, offered large bounties to encourage the industry. The government actually paid several cents per pound for all sugar made from beets for many years, until an ample sugar production from this source was assured, and Napoleon exhibited his sagacity by giving this encouragement, and thus keeping the vast millions that would have to be paid to foreign powers, at home in his beloved France.

If Missouri can produce her own sugar—and she surely can, by giving some little encouragement to it—it is not better to keep the eight millions of dollars at home, that now go to foreign powers every year? This trifling sum of fifteen thousand dollars (and no more will ever be asked for, because it is sufficient for the purpose, for all time), what is it in comparison to the eight millions paid out by our people annually? Is any one so blind as not to see the wisdom of rendering this needed assistance? We have the Agricultural College and the Agricultural College lands, and by expending this sum, the lands can be utilized and made remunerative. It is the business of agricultural colleges to aid in the development of all branches of agriculture. Our Agricultural College has not the means to help the sugar industry without this small appropriation. Will it be given? We trust it may be.

In another column will be found an interesting article on this subject by Dr. E. F. Newberry, of the Illinois State Cane Growers' Association, which we hope will be read by all. This is an age of progress, but the means of progression for such great industries as the one under consideration should be afforded by the public at large, for the public in the end will reap the benefits.

The sum asked for is not a gratuity, but an investment of a permanent character, to render more useful and available the lands of the Agricultural College farm, as well as to make experts in a new industry.

There is also coupled with this sugar making, a purpose of utilizing the offal of this crop; that is, the skimmings, seed, &c., together with the other products of the farm, in feeding and fattening stock in a more economical method, which is a matter of very great importance to Missouri farmers.

An investigation is now in progress under the direction of the directors of the St. Louis Merchants' Exchange, where the well-known ability and skill of Mr. Charles Belcher will be brought into requisition to ascertain whether the products of the cane will yield remunerative returns. This report will appear in a day or two.

## No Back Numbers.

On account of the unprecedented increase in the circulation of the RURAL WORLD, the back numbers for the first month of the year—January—are entirely exhausted. The subscription of those remitting hereafter, whether old or new subscribers—must begin with February. We regret that we are unable to comply with the wishes of a large number of subscribers by sending them back numbers, but they should have sent their favors at an earlier date.

We are in receipt of a number of interesting articles from northern men, who reside in different portions of Missouri, confirming our editorial remarks in reply to an article written by Mr. Funk, of Iowa. That these persons, who have lived many years in this State, and whose political status differs from that of the dominant party in Missouri, are better judges of the sentiment in this State towards immigrants from the northern States than Mr. Funk, who is a non-resident, no reasonable man can doubt. These letters will appear from time to time, as the crowded state of our columns will permit.

An effort will be made in the Missouri Legislature to prohibit pool-selling at horse races. Now, it is not a pleasant foible in a son or an employee that he is fond of games of chance; but, to break down such propensity, moral force and suasion are the best weapons. Gambling is a vice which can be followed under very slight cover without fear of detection. As pool-selling is one of the most honest of the methods now in use, to stop it would probably be productive of more harm than good.

The game laws of this State are now in full operation regarding venison, quail and grouse. As unusual vigilance will be exercised by sportsmen all over the State to detect infringers, it would be well for every one to make a note on 't.

## News and Notes.

Smallpox is raging in New York city.

The new senator from Wisconsin is Philatus E. Sawyer.

Sara Bernhardt's receipts in St. Louis were over \$21,000.

Pittsburg, Pa., has an agitation over a haunted house.

Dry goods houses burned in New York Jan. 27. Loss, \$600,000.

Clinton Co., Pa., has a tobacco crop valued at \$400,000 annually.

Quebec extorts a license fee of \$60 from American commercial travellers.

The Cuban tobacco crop will be large, but the product of an inferior quality.

Florence, the actor, modeled his "Judge Slocum" from Sawyer, the new Wisconsin senator.

Edward S. Paxton, of East Bradford, Chester county, Pa., shot two horned larks last week.

One-eighth and over of the fire in Philadelphia last year were caused by coal oil explosions.

Howell E. Jackson, Democrat, was chosen senator from Tennessee on the 30th ballot, Jan. 26th.

Philadelphia capitalists will invest in 12,000,000 acres of reclaimable Florida lands to raise sugar.

Mrs. Collier, of Petersburg, Va., had her dress ignited on the 26th ult., and was burned to death.

Mrs. W. G. Deitrick, of Wyoming, Pa., gave birth to three girls and a boy on the night of the 26th ult.

The Charlie Ross epidemic has broken out afresh, and he is being found in various parts of the country.

Seven prisoners at Burlington, Vt., dug a tunnel under the wall of the prison and escaped last week.

The sugar crop of the world last year was 3,422,988 tons. Of this 46 per cent. was the best root product.

A broken rail near Cincinnati threw a passenger coach down a bluff, and fatally injured a number of persons on the 25th ult.

The present system of internal revenue and custom taxation brings to the national treasury \$100,000,000 more than is required.

Mrs. Sally Hunter, the only surviving servant of George Washington's household, died in Westmoreland Co., Va., last week, aged 115.

Parnell and his coadjutors were acquitted at the Dublin trials. His friends welcomed him on the 26th ult. with a torch-light procession.

Smallpox, diphtheria and diseases which in summer would probably become Asiatic cholera are increasing materially Chicago's mortality.

The house in which William Penn convened the first Pennsylvania Legislature is still standing in Chester, Pa., and is used as a cooper shop.

By the explosion of a boiler of a stationary engine on Caswell's wharf, Charlestown, Mass., on the 26th ult., four laborers were seriously injured.

The pedestrian match for the O'Leary belt came to an end Saturday night. "Lepper" Hughes made 566 miles in the six days, beating all previous records.

Henry Mantel, Mr. Rymer, Daniel Fitzgerald and James Doherty, laborers in a lumber yard in New York, were recently bitten by a mad dog, which was subsequently killed.

The appropriation for the improvement of the Mississippi will be apportioned as follows: Between St. Louis and Cairo, \$600,000; between Cairo and New Orleans, \$1,200,000.

Smallpox has broken out in the Fort Madison (Wis.) penitentiary, creating great excitement and panic. All the foremen of contract work have fled, and work is generally abandoned.

Captain-General Blanco has issued an order forbidding the advertisement, private sale or introduction in any form in the island of Cuba of tickets of the Louisiana or any other foreign lottery.

Moses Turgess, colored, was hanged Friday at Waynesboro, Pa., for the murder of Dennis O'Donoghue, Frank, a brother of the condemned, was relieved, as Moses confessed that he alone was guilty.

A joint resolution for the printing of 50,000 copies of the special report of the commissioner of agriculture relative to the disease of swine and other domestic animals was on Friday passed by the house.

A heavy shock was plainly felt at Montgomery, N. Y., on the 27th ult. Many people supposed it to have been a boiler or powder mill explosion. In one house the keys were shaken out of the locks of the doors.

The execution of Cleophas Lachance for murder took place on the 28th ult. at Arthabascville, Quebec. He confessed his guilt. Lachance, in October last, killed Miss Deslaur because she resisted his improper advances, and afterwards threw the body into a well.

Miss Clara Frick, of Pittsburg, threw a shovel of fine coal on the fire on the night of the 24th ult., and a loud explosion followed, injuring the lady painfully. It is supposed to have been caused by a bottle of powder accidentally dropped in the coal by a miner.

A dispatch from Kansas City says Prof. O. C. Hill, principal of the Normal school at Oregon, Hall Co., Mo., will be private secretary to President Garfield. Prof. Hill was one of the faculty of the college at Hiram, O., when Mr. Garfield was president of that institution.

Internal Revenue Agent Downing telegraphed Commissioner Raim from Jacksonville, Fla., that he has captured a large illicit distillery in Lafayette county, where it was in operation. This capture creates surprise at the Internal Revenue Bureau. It is presumed that the raw materials used by the fraudulent distillers were sugar cane and molasses.

"I don't believe in these secret societies," said one lady to another. "That's very singular," replied the other. "Your husband is a Forester, a Knight of Pythias and a Knight of Honor, and you will have at least \$10,000 when he dies." "But what good does all that do me," was the tart response, "when he never dies?" And the poor creature burst into tears.

Thos. J. Stull, a farmer from McLeansborough, Ill., was arrested on the 25th ult., charged with the murder of an unknown man, in an alley in St. Louis. Stull was on a spree, and pleaded that he was assaulted by the man and two others for the purposes of robbery. The coroner's jury acquitted him on the grounds of justifiable homicide. This action may be set aside by the grand jury.

Eleven years ago Miss Harvey, of Condor, Tioga county, Pa., held a pin between her lips while dressing, which passed into her mouth and was supposed to be swallowed. Recently an extremely painful swelling appeared upon one side of her tongue, from which Dr. L. D. Farnham removed a pin two inches covered with lime formation, and much corroded. The lady's health has much improved since.

Mr. Dawes has presented to the Senate a petition signed by John Walsh, Bishop Simpson, Rev. Joseph Cook, Wendell Phillips and 32,000 other individual signers, with the signature of churches, benevolent and other societies, representing in all more than 50,000 citizens, praying Congress to observe the treaties heretofore made with the Indian tribes, and in future to do justice to the remnants of that people.

A fair young mother with a crying babe in her arms sat in a western stage coach. On the opposite seat was a prominent politician of engaging manners. By-and-by he said: "Let me hold your baby; perhaps I can soothe him." "Oh, no, I'm much obliged; you could not help me any," was the answer. "But," he persisted, "you had better let me try." "You are very kind, but I know you couldn't help me, for he is hungry," replied the blushing mother.

A remarkable case of fasting is reported from Ipswich, England. The wife of a gardener named Lockwood has not eaten a pound of solid food for the last year, and for the last three months has only taken a few drops of weak tea, less than a pint per month. She is reduced to a skeleton, unable to move her head or open her eyes or mouth. She can maintain her lips with the finger of her right hand, but otherwise is unable to move. She faints at the least excitement and lies for hours and days in a state of coma. In one instance she laid so for a fortnight. When she desires to call attention she sighs deeply. When not insensible her mental faculties are almost unimpaired. Her physician says she suffers from pressure on the brain.

## RURAL WORLD PREMIUMS.

Our time has been so completely absorbed that we have heretofore been unable to give any attention to our Premium List. We will try to take time now to prepare it. We shall be glad to receive contributions for this list from all persons who wish to aid in encouraging the wider circulation of the RURAL WORLD. The names of the donors, with post-office address, with the articles contributed, will be kept standing in this column till the first of April, when the premiums will be awarded. Those wishing to offer anything will please write us.

Judge Geo. W. Whiteside, Greenfield, Dade Co., Mo., offers one pair of choice Poland-China pigs.

Also one choice Poland-China pig, either sex.

Also a trio of choice Dark Brahmas fowls.

K. H. Allen, O'Fallon, St. Charles Co., Mo., offers one thoroughbred Cotswold lamb, either sex.

B. R. Westcott, Mason, Effingham Co., Ill., offers one setting (13) of Partridge Cochins eggs.

One setting (13) of Brown Leghorn eggs.

One setting (13) of Plymouth Rock eggs.

One setting (9) of Bronze turkey eggs.

Chas. D. Colman, Lakeside farm, St. Louis, Mo., offers one choice Berkshire pig, either sex, from registered stock.

Mrs. N. J. Colman, St. Louis, Mo., offers one setting of eggs from choice Plymouth Rock fowls.

Ingram, Perry, Pike Co., Ill., offers one choice Jersey pig.

John S. Wice, Freeport, Ill., offers one setting (13) of eggs from pure Dominique fowls.

H. H. Russell, Warrensburg, Mo., offers one pure Magpie sow pig, from choicest Ohio stock.

F. P. Vest, Oconee, Ill., offers for premiums two settings of eggs, to be chosen from the following varieties of game fowls, viz: Black-breasted Red, Tartar, Tornado, Brown Red, Stone Fence, Black-breasted Irish, Duck Wing.

Chas. G. McHatton, Fulton, Mo., offers one Berkshire pig, from registered stock.

Mrs. Bettie McHatton, Fulton, Mo., offers one choice trio of Light Brahmas fowls.

## A Grand Success.

The Charter Oak Range in our kitchen is a grand success, the best range we have ever used, and we cheerfully recommend it with a clear conscience, knowing we do our friends and neighbors a favor who are looking for a first-class range.

## The Markets.

St. Louis, February 2, 1881.

Flour—\$5 17, \$5 10, \$5 07, \$5 05, \$5 00, \$4 80, \$4 65, \$3 50, and \$3 05 as in quality.

Rye Flour—\$4 80 to \$5 10.

Buckwheat Flour—Eastern \$5 50 to \$5 75, patent \$6 00 to \$6 25, western \$5 50 to \$5 75.

Corn Meal—\$2 25.

Wheat—Sales—Red 96c, 1 00, 1 03, 1 04, 1 05. White—76c, 99c, 1 04.

Corn—Sales: In bulk 39½¢, No. 2 white-mixed 41¢. On orders 48c.

Oats—Sales: 3 cars white on trk this side at 35c, 175 bbls do at E trk 38c. Prime to choice mixed selling at 40¢ to 41c.

Barley—Lowa 70 to 75c, Scotch 82c, and Minnesota at 95c.

Rye—Sales: Small lot thin at 83c, 87 bbls prime at 88c. Choice worth 90¢ to 92c.

Hay—Prime prairie \$11, prime timothy \$14 24 to \$16 50, red-top mixed \$13 50.

Cotton—Good middling 12c, middling 11c, low middling 10½¢, good ordinary 9½¢, ordinary 8½¢, low ordinary 7½¢.

Hemp—Undressed \$100 to \$120, shorts \$120 to \$130, dressed \$150 to \$160, hackled tow \$65 per ton.

Balingstuffs—We quote: Baggings—2-lb jute 10 to 10½¢, flax and flax-mixed 9½¢ to 10c, hemp twine 14 to 15c, iron cotton ties \$1 50 to 1 75 per bundle.

Lead—Soft Missouri selling \$4 50.

Copper—Choice nominal at 12½¢ per gallon.

Rags—Country mixed 2 to 2 25 to 100 lbs.

Sorghum—Choice 35c, fermented 20 to 25c.

Hops—Choice New York 24 to 25c, second do 19 to 20c.

Honey—Dark comb 13 to 14c, strained and extracted 11 to 12c.

Empty Barrels—Lined \$1, coal oil \$1 15 to \$1 30.

Grass Seeds—Timothy \$2 50 to \$3 60, German millet 50 to 55c, redtop 40 to 45c, clover at \$4 90 to \$5.

Flaxseed—Prime \$1 60.

Flaxseed—1 13 to 14 on basis of pure.

Cattle Heads—Prime \$1 15.

Butter—We quote: Creamery 30 to 32c, dairy packed—choice and selections 20 to 22c, medium to prime 13 to 16c, common 10 to 12c, roll—Northern 19 to 21c, country 14 to 16c, choice 17c.

Cheese—Full cream 14 to 15c, part skims 10 to 11c, poor skims 3 to 6c.

Eggs—Quotable at 25c for fresh.

Veals—We quote: Carcasses 5 to 8c; live 6 to 6½¢ per lb.

Winter Beans—Firm. Medium at \$1 to \$1 25, navy \$1 25 to \$1 35 Eastern—Hand-picked medium \$1 80 to \$1 85.

Apples—Ben Davis \$2 00 to \$2 25; winesap and genitling \$1 25 to \$1 75. Eastern \$1 60 to \$1 90. Fruit damaged by frost, speckled, small, mixed and poorly packed ranges from 50c to \$1 25.

Dried Fruit—Sales: Apples—small lots 3½ to 3¾¢. Peaches—5½ to 6½¢.

Sweet Potatoes—Slow at \$1 75 per bbl.

Onions—\$4 to \$4 25 per bbl for fair to choice.

Dried Green Peas—\$1 80 to \$1 90; inferior much less.

Saves Kraut—On orders at \$10 50 per bbl.

Celery—20 to 50¢ per doz.

Horseradish—\$5 per bbl.

Carrots, Beets and Turnips—Sell lightly in shipping order at \$1 75 per bbl.

Cabbages—\$4 50 to \$5 per crate.

Potatoes—Eastern—peachblows, 90, peerless 80, rose 80 to 85. Western—peachblows and peerless 70 to 75c, bottom rose 60 to 65c. Near by growth 60 to 65c.

Oranges—Louisiana choice to fancy \$7 at 8¢ per bbl, frosted 3 to 4. Valencia 7 to 8¢, Seville 3 to 4. Malaga 2 to 3 per box, Palermo 3 to 5, Messina 3 to 5 to 4 to 5.

Cocoanuts—\$4 00 per thousand.

Crabapples—Table \$7 to 8, bakers \$5 to 6 per bbl.

Grapes—6 to 7c, and \$3 25 to \$3 50 per keg for choice free from frost.

Figs—Haccon—No. 1 at 75c, No. 2 at 35¢ to 38c, No. 3, 20 to 25c, No. 4, at 10c. Mink—No. 1, 70c; No. 2, 40c; No. 3, 20c; No. 4, 10c.

Skunk—Black 65 to 75c; short stripe, 45c; narrow stripe, 30c; white or civet 10 to 15c; wild cat 15 to 20c; house cat 5 to 10c. Fox—grey 65c; red \$1. Otter 50c to \$6. Beaver, 50c to \$1 75 per lb. Bear \$2 to 7. Badger 20 to 50c. Opossum 8 to 10c; case do 12½¢. Fall muskrat 5 to 10c, kitten 2 to 3c. Wolf—Timber 2 to 3, prairie 75c.

Wool—Tub-washed—choice 43c, fair 42c, lamb 40 to 42c, dingy and low 35 to 37c. Unwashed—choice 27c, inferior 24 to 21c. Merino—light fine 20 to 21, heavy do 17 to 18c. Burry, black and cotton, 5 to 6c.

Hides—Dry—No. 1 first 18c, No. 2 do 15c; No. 1 celled 14c, No. 2 do 12½¢, bull and stag 11c. Green—No. 1 salted 8½¢, No. 2 do 7½¢, No. 1 uncured 7½¢, No. 2 do 6½¢, salted calf 12c; bull and stag 6c for uncured, 6½¢ for salted.

Feathers—Prime L. G. 4½¢, mixed 30 to 35c, chicken 5 to 10c, tare 3 to 10 per cent. on large and small sks.

Sheep Pelts—Green—Salted pelts and lamb skins 50

## Live Stock Breeder.

### FOOD ADULTERATION.

Illinois will probably be the pioneer State in the new movement against food adulteration, and it is hoped that Missouri and other States will follow speedily in the same direction. American ingenuity is devised in these vile deceptions to an extent that would cause general alarm were the facts known. Consumption of liquor is to be deprecated in any sense, but how much more so when the "old brands" of whiskies, wines and brandies are compounded of drugs under the bar-room counter, and are calculated to drive the consumer to frenzy. The delicate stomach of the innocent child is loaded with terra-alba, in the shape of enticing confectionary and results in dyspepsia, decay of the teeth, and, by overtaxing the power of the digestion in the struggle to get rid of the weighty stuff, results in positive and early breaking down of the health. In sugar, coffee flour—indeed, in all the condiments and composites of the table, the subtle hand of the chemist is employed for the purpose of injuring the many that the few may become the richer.

In this connection, it is not pleasant to think that not many months ago, a member of the U. S. Senate and members of the House of Representatives visited manufactories of oleomargarine and were feted to a state of imbecility, in New York and Baltimore. These "representatives of the people" indulged in some antics and buffooneries that were disgraceful. One specimen brick being from a prominent senator, who designated the bogus stuff as "delicious," and, furthermore, that if he had a dairy he would kill all his cows and close it up when oleomargarine was to be procured. This was regarded as merely a trifling piece of business at the time, but could there have been a more decided proof of a proneness to break faith with the people who put them in their high office, for it is not only the producer of pure butter and pure cheese who suffers, but it is everybody upon whom the fraud is practiced. In fact, the consumer who is taking into his stomach a compound simulating a nutritious article of food without containing the least element of nutrition, is, by a long way, the most unfortunate of the two.

The movement on the part of the manufacturers of this stuff is that they be allowed to vend the compound under its proper name. Now, it is a fact that will not stand contradicting that it has always been passed in wholesale circles for what it was, for experiments would readily determine that; yet millions of pounds have passed over the counters of retailers, and it would be mere mockery to ask the question, "How many of these did not sell it for what was asked for—pure butter?" How then is the matter to be improved? It is a paradox for the law to solve, and solve it must. The exhibit is an exportation of 23,000,000 pounds of bogus butter from this country last year. An expert, traveling for a well known firm in this city, says that throughout the state of Texas "butterine," or oleomargarine, can be found on the table at every town. The people do not seem to know the difference, but, in time, their stomachs will intimate irregularity, which will require immediate inquiry. There is no more insinuating breeder of dyspepsia than these same compounds.

Now that the issue is made, the dealers in fine butter will have to make the fight. Already Mr. Tivy, of St. Louis, has declared himself openly, honestly and candidly in connection with the topic, and next week we will publish an interesting interview on the subject, showing how the matter is worked in the St. Louis market.

### Foot and Mouth Disease.

An outbreak of foot and mouth disease in England has resulted in an order in council, which places such restrictions on the movement and exhibition of cattle that practically half the cattle trade of the kingdom is under embargo. English papers offer congratulations that the Christmas stuffing was over before this new misfortune occurred, but like good feeders as they are, they deplore the rise in beef that is sure to ensue. When England is out of the question herself, she does not always disbelieve in low diet. For instance, Beaconsfield has remarked in his surprisingly easy way, "That a famine in Ireland is not the worst thing that could happen that troublesome island." The Indian tiger may be brought to subjection by small diet and the iron rod. But inattention and backshot to the Irish only acts as a leaven that produces extraordinary goings on, truly awful to John Bull, who personally would like to enjoy uninterruptedly the contentment that is influenced by his own well-filled stomach.

There was the bouncing of Boycott (a nice gentleman through English spectacles). Those Irish are never satisfied; it was next bounce Jones. Then the traversers walked out of court. And to cap all, the boys in the House keep up such a perpetual turmoil that respectable English members have to sing: Lullaby, Baby, to their aged chief. They (the boys) move progress, and by reverse, everything stands still in the legislative temple that is supposed to sway the destinies of an empire on which the sun never ceases to shine. Oh Ireland, you are making yourself felt. "First flower of the earth, and first gem of the sea."

Excuse this digression. We are a nation of sympathizers, and we merely wished to show that the foot and mouth disease is but one of the many troubles besetting our English cousins. At present the meat question in England is overshadowed by much greater events. It merely helps to balance the commercial scale in our favor. But if in time the roast beef of America should become as household words to the people over the water, we will not be dissatisfied, for the words have an agreeable jingle in them that ought to be gratifying to our feelings as a trading people.

The east has recently received an installment of foot and mouth disease from England, and although the disorder may never reach the west, we take it that the western stock raiser should know something about an epidemic that is disturbing the cattle trade of Great Britain, and which of necessity must have a greater or less influence on our own.

Eczema contagiosa (foot and mouth disease) is a febrile disorder; and as its name implies, is highly contagious. It is not entirely confined to horned cattle, sheep suffer severely from the disease; dogs, pigs and poultry are not exempt from its infection, nor even is the human subject. After being exposed to its exciting cause, there is a period of incubation from two to four days. When the disease develops itself by an increased animal temperature, varying from five degrees above the normal standard—the appearance of large vesicles on the lips and mouth—smaller ones about the digits, which cause lameness and sometimes the separation of the hoofs from the sensitive foot. After a while the scales fall off, infecting the pasture or even pastures at a great distance, through those excretions being transported by the feet of game, vermin, dogs or the person of an attendant. The symptoms from which the disease derives its popular name, are the eliminations of a morbid poison affecting the entire system. The disease is not often fatal, nor does one attack modify or prevent a second.

In bad forms of the disease, cows become nearly dry, and in milder cases the loss of milk is usually about one-third. But until the animal has entirely recovered from the disease, that fluid is of no use for any purpose whatever, for if it is administered to pups, litters of swine, or other young animals, it acts as a down-right poison.

The losses that result from foot and mouth disease are mainly included in condition and milk; and as ruminants usually make an entire recovery, the influence that this epidemic may have on our trade is merely evanescent.

### Spaying Cows on Foot.

COL. COLMAN: I see in the RURAL WORLD that information is wanted about how to spay aged cows on foot. I have followed that business for several years. My plan is to place the cow in a stall and make her head fast to a post, then make an opening in the left side large enough to admit the hand, on which I have a false thumb nail made from a piece of saw blade, with which I sever the ovum without molesting other parts. The false nail should be made so as to fit snug around the nail of the thumb and extend back to the joint and lie around the thumb so as to hold it on.

Any one wishing work done in this line can procure my services by giving a job large enough to pay expenses.

Whitehall, Ills. Wm. Conn.

### Attention to Stock.

The following hints in regard to stock, from the Iowa Register, are timely:

In 25 years we have not heard as much complaint, by newspapers and personally, about the lack of water for stock as at present. In parts of the State, streams and ponds at the commencement of winter were low, and in many cases dry. The winter has been extremely cold, and shallow streams have frozen to the bottom. Wells have failed, and cattle are unable to get enough to quench their thirst. The weather has been too inclement and mild, and there are great distances, and cattle have been compelled to lick snow to satisfy in a partial degree their thirst. But this will tell heavily on the flesh and growth of the animals. Farmers relying on stock raising and dairying, if not near a never-failing stream, must provide ample wells, and supply their stock by the aid of windmills. And this is far better than watering from streams, as the latter are ice cold and will require much more food to counteract this cold, and keep up the warmth of the system. With wells and windmills a farmer can have his water for stock just where he wants it, and of the right temperature. Instead of being at about 32 degrees, it will be, if freshly pumped up, about 55 degrees. And the difference in the growth of the herd of cattle, as well as in flow of milk, will soon pay for the most ample wells and mills. In wet and mild winters this is not so much needed, yet there are times in all winters when convenient water of proper temperature would be greatly desirable. Besides the profit in these matters there is considerable humanity involved in the comfort of the domestic animals, all classes of which need plenty of water in winter as well as in summer.

This is a trying time for stock which are not provided with comfortable shelter. There is no food in the fields, and the stock is entirely at the mercy of the owner. Neglect now will be a serious loss in flesh, and cause of much misery to stock. There is no time for idleness or neglect for sleigh rides. Iowa has a vast interest in stock, and there is a demand for as much vigilance now as there is in midsummer when the ripening harvest demands all of the energies. Stock must have a plenty of water and food. For the next two or three months corn should be used liberally but wisely. There is plenty of it and cheap. Let the cattle have it. There is warmth and back-bone in it. Stay home and take care of them. Do all that is possible to make them comfortable. There is religion as well as money in it.

The predictions relative to the future supply of hogs or beefs for any particular period are about as reliable as future predictions of the weather. But the intense cold, which has prevailed for a month, will tell heavily on the number of ripe beavers ready for early spring markets. Unless there be a let-up soon, and the spring is an unusually early one, western cattle men will sustain very heavy losses. As a general thing cattle went into the winter in a better condition than usual. But in parts of Iowa, Nebraska, Wyoming and Colorado the ground has been covered with snow to a considerable depth, and it is reported that cattle are suffering for food and water. Even in Iowa, hay is scarcer than usual. A large number of farmers have their corn in the fields, so that no use can be made of the stalk fields. On the plains the prospect is worse, as the ground is covered

to considerable depth with snow, and only where it is drifted, leaving the ground bare in places, can anything be had for food. Different from what it is in Iowa, where there is a plenty of cheap corn, on the plains it is dry grass or nothing. This makes the present outlook anything but flattering, except to those who have their stock in good quarters and plenty of rich food. The remarks relative to stock on the plains, apply in a limited degree as far south as Texas, as the cold wave has extended over that State to an unusual degree, and though not as intense as further north, yet less cold there is as injurious as more further north. Consequently those who have good beavers next spring and early summer will be likely to get a good price for them. The winter is only half gone, and yet we have more cold already than all of an average winter. If the latter half should supplement the former, cattle and owners will suffer seriously in flesh and pocket.

### J. Lucas Turner's Jerseys.

EDITOR RURAL WORLD: I have had the following births in my herd of Jerseys:

Bonnie Lou (11479)—By Duke of Magnolia (2826), dam Acorn of Staatsburg (2890).

Ettie, solid color (10315)—By Duke of Magnolia, dam Jeanette (5274).

Belle of Kinloch, solid color (11478)—By Duke of Magnolia, dam imp. Belle of Normandy (8079).

Miss Sady, solid color (11480)—By Duke of Normandy (3446), dam imp. Baisey (8077). J. LUCAS TURNER.

Columbia, Mo., Jan. 26, 1881.

### Imported Stallions.

NEW YORK, January 26.—Three mammoth Clydesdale stallions are stabled in the United States bonded stables in this city, awaiting removal to Nebraska. They are splendid specimens of the Clydesdale breed of horses, and have enormous feet and legs. They are not handsome or showy from an artistic point of view, as their legs seem short and massive, and are covered with hair, while their manes are also full and bushy. Judges of horses, however, say that the animals are some of the finest specimens that have arrived here for a long time past. They arrived a few days ago from Scotland in the steamer Anchoria, and are the property of Mr. Reeside, who is taken them to Nebraska. They have not been injured in the least by the voyage. They are black, brown and bay, and are valued at about \$8,000. The brown stallion is four years old, 17 hands high, and weighs nearly 1,900 pounds. There also arrived in the same steamer, four magnificent fox hounds for Maj. Shierley, of Kentucky.

### The First Importations of Stock.

The following account of the first importations of stock into the United States is taken from the columns of the Irish Farmers' Gazette: "In 1610 four cows and one bull, after a long and dangerous passage by sailing vessels, were landed in Virginia from Ireland. These were the first domestic cattle seen in America. In 1625 eighteen ewes and two rams were introduced into New York by the Dutch West India Company. The first horses landed in any part of North America were carried over to Florida by Cabeza de Vaca in 1527; they all perished. The wild horses found on the plains of Texas and the western prairies are probably descendants of the fine Spanish horse abandoned by De Soto. In 1625 part of the trade of the Dutch West India Company was the carrying of horses from Flanders to New York, and that year six mares and a horse were safely transported from France to America. The London company were the first exporters of swine from Britain to America; and in the year 1621 they carried on their vessels no less than 84, which were, on landing, allowed to roam at large and feed and fatten on the mast, which was very abundant in the woods. They increased so fast that in 1627 the colony was in danger of being overrun with them, but the Indians acquiring a taste for fresh pork and the novelty of hunting hog, that calamity was averted. So important was it considered at that time that the cattle, horses and sheep introduced into the infant colony should be preserved and allowed to increase, that the governor issued an order prohibiting the killing of domestic animals of any kind, on pain of death to the principal and to the alder and abettor or accessory. In 1639 horned cattle, horses and sheep had increased to 30,000. In 1679 there were over 40,000 sheep, 30,000 cattle (of which over 12,000 were milk cows), 15,000 horses, 2,000 mules, and 30,000 swine in the United States.

J. R. Turner, Fredericksburg, Madison Co., Mo., writes us he wishes to purchase two good, heavy, serviceable brood mares. Mares of this kind can be had at almost any time in St. Louis, but a man must be a good judge of a horse who buys in a city, or he may get "bit."

Van Blarcom, the boss fine harness maker of St. Louis, has moved from 507 Sixth street to 613 North Seventh street. Van cannot be beat anywhere in getting up fine single and double harnesses, bridles and horse paraphernalia generally. He uses only the best leather, and his work is cut out and put up in the very latest style. Those wanting anything pertaining to the harness line should leave their orders at Van Blarcom's Harness Store, 613 North Seventh street, St. Louis, Mo.

E. C. Simmons, Esq., of St. Louis, has purchased of Mr. Clark Bell, the roan filly Centennial's Sister, by George Wilkes, out of the dam of Centennial. She reached St. Louis on the 12th ult. Mr. Bell thinks she is the best-bred filly he has ever raised, and one of the most promising. The terms were private, but Mr. Simmons must have paid a long price to get her. Mr. Robert Bonner has Centennial from same dam, by a half-brother of Wilkes, and the same color—Spirit of the Times.

A card signed by President O. Bill, and Secretary E. M. Shelton, informs us that a breeders' institute will be held, under the auspices of the Central Kansas Breeders' Association, in Manhattan, February 15th and 16th, for the purpose of discussing questions connected with the improvement and management of live stock. A number of gentlemen, prominent in live stock matters, have promised to be present and furnish papers and addresses. The work of the institute will be divided into sessions, beginning promptly at 2 p. m. February 15th. The

forenoon of February 16th will be devoted to visiting the Agricultural College and herds of the vicinity, for which conveyances will be provided.

Mr. Isaac A. Chase, Goshen, Ind., has purchased the following horses: From W. D. Walden, Clinton, Iowa, the yearling filly Rattler Maid, by Almont Rattler, dam by Vosburg. From Judge W. I. Hayes, same place, the weanling colt Pavone, by Almont Rattler, dam Pavonia by Peacock; also the Elliott mare, by a son of Abdallah.

## The Shepherd.

Edited by R. M. Bell, of Brighton, Massachusetts, to whom all matter relating to this department should be addressed.

### Sheep Visiting.

Now is the time of the year to visit your neighbors and see how they feed and care for their sheep. If you have no neighbors who keep sheep, take a little more time and go further from home to some known care-taker, and stay a day or two. If there is one pleasure more than another to a sheep man with good sheep in good fix, it is to have some one that is an expert in sheep matters to come and "look him over," and criticize his sheep and his handling. Yes, we say criticize, for he is trying to learn and do his best; and if he is not doing it, courts criticism, and takes it as medicine, if he needs it. Visiting stimulates enthusiasm, kindly, benevolent rivalry, and a higher standard of excellence; better processes of handling; better systems of breeding; better practices in breeding and marketing the products of the flock. Were sheep men in the west given to visiting each other, as are Vermont breeders, there would be more careful attention given to all the details of sheep husbandry than there is now. There, no one knoweth who may drop down upon him at any moment. It has become a mania with them to visit the sheep barns and overhaul a man and his sheep. It tends to sharpen a man; it prompts him to keep the best and to get all out of them there is in them. No man with good or bad sheep wants to have visitors to his sheep barn unless they are in condition to look at, and he will have them so, if he expects visitors.

All stock men enjoy showing what they have and how they are managing to get good results. Yet we have thought sheep men exceeded them all in this happiness. There is far less of this than there ought to be, and we urge upon the RURAL WORLD sheep men to inaugurate the practice—the treat of visiting and comparing notes and learning all there is of good or the causes of failure in the handling of sheep among your neighbors. It will pay you and it will pay your neighbors a thousand-fold better than the "go it alone" plan we have been born to or have fallen into by letting alone and being left alone. We are not hog men, but we are sheep men, which ought to mean generous, courteous and sociable gentlemen.

### Best Breed to Cross With.

Subscriber, Saline county, Mo., asks what kind of bucks or breeds are best to improve a flock of ordinary sheep with—Cotswolds, Merinos or others?

This depends upon what you mean to raise them for, how many you mean to keep and how well you mean to keep them. If we had them, our object would be to make money out of them in wool and mutton, and we should keep them in considerable flocks. So we would use Spanish Merinos to give them hardiness, which means health, vigor and constitution to run in large flocks and do well, whether we gave them the best keep in the world or not.

If K. H. Allen had them, he would use Cotswold rams to give them size and early maturity, and then sell them when four years old, so as to have his money out of them before they began to show age and decline. He would breed for mutton, and then feed for it, and as soon as fit for the butcher, get his money out of them.

Some would use Southdown rams for nearly the same results, and would have to pursue nearly the same handling to find profits.

There is no cross you can make that approaches the Merino for making money surely, easily and rapidly, where sheep are to rough it on the farm or on the range on uncertain care, or with the best care, either in large flocks—say 100 and upwards. If you kept small flocks of 30 to 50, and put them on the top shelf, and market the fat sheep at the right time in the right fitness, any of them—Cotswolds or Downs—will be profitable.

"Top shelf keep" means Short-horn care, feed and shelter from storms. It is regular feeding on a variety of food that builds up and develops the system and secures perfect health from the time its mother is pregnant until brought to the shambles.

So, what kind of care do you intend to give? In what numbers and from what products do you expect your money?

### Northern Illinois Sheep Breeders.

The Northern Illinois Sheep Breeders' Association held their annual meeting at Elgin, Ills., Jan. 12. The meeting was the largest and most enthusiastic one ever held by the association.

Geo. E. Peck, of Geneva, Ills., was chosen president and W. C. Vandercook of Cherry Vale, Ills., was re-elected secretary.

Their annual sheep-shearing festival will occur some time in April, time to be fixed by executive committee, and it will be reported.

The association adopted the following resolution, copies of which were ordered sent to U. S. Senators Logan and Davis, and Congressman Sherwin:

The Northern Illinois Fine Wool Breeders' Association unanimously urge you to make all proper effort to sustain the present tariff on wools, believing it necessary for the continuance and prosperity of this important industry.

The association voted to award premiums for the best exhibitions of stock and shearing at the festival, and Superintendent Richards was instructed to invite a committee of experts from Wisconsin breeders.

G. E. Peck, W. C. Vandercook, Daniel and C. B. Kelley, J. Manning and G. W. Hunt were selected delegates to the annual convention of Wisconsin breeders, to be held at Whitewater.

G. W. Hunt, Geo. E. Peck and Daniel Kelley were appointed as experts to attend the Wisconsin sheep-shearing festival, to be held some time in April. The subject of methods in sheep-raising, for wool and for mutton, was discussed at some length, after which the association adjourned.

### LOOKER ON.

#### National Wool Growers.

An adjourned meeting of the National Wool Growers and Wool Manufacturers' Association was held at Washington on the 15th ult. The wool growers in attendance represented stock aggregating 32,800 sheep, valued at \$181,610. Several interesting papers were read upon sheep husbandry. John L. Hayes, secretary of the National Association of Wool Manufacturers, read a paper upon the products required by looms and the best modes of producing them in the United States. He attributed the lack of production of the finer wools in this country to the demand created by the prevailing fashions for coarse wool cloths.

M. Kellar, of Leman, Dessong, Australia, an extensive wool grower, was present and addressed the association. He is in this country for the purpose of locating an extensive ranch, and importing his sheep and shepherds from Australia, as he is satisfied that wool can be grown as cheaply here as there, with the advantage of a much better market.

The following resolution was adopted by the association:

Resolved, That it is advisable that the Department of Agriculture institute a register of the different breeds of sheep and cattle in the United States; that this convention earnestly urge upon Congress the importance of establishing in the District of Columbia an experimental farm to be maintained at the expense of the government for the purpose of acquiring and maintaining the best species of domesticated animals, and especially of sheep and cattle for distribution among the States.—Prairie Farmer.

### Sheep Items.

Mr. Ritchie, a heavy wool grower of the South Platte country (Nebraska), shipped 12,000 pounds of wool from 900 sheep during the past season.

At the late annual session of the Wisconsin Sheep Breeders and Wool Growers' Association, at Whitewater, Wis., the principal topic discussed was the destruction of sheep by dogs and wolves.

Sheep in Colorado and Wyoming are having a rough time of it. North of Denver, we learn that flockmasters were compelled to scrape furrows in the deep snow with teams as early as the middle of October in order that the sheep might get at the grass.

From the Rutland Herald and Globe we learn: The Vt. M. S. Breeders' Association held its annual meeting Jan. 12, 1881. E. N. Bissell was re-elected president for the ensuing year, and Albert Chapman, Middlebury, Vt., was continued as secretary with an increased salary of \$1,500 a year. The auditor's report showed the receipts of the past year were \$4,514.90, and the expenses, \$2,248.01, with a cash balance of \$2,266.88 on hand.

There are those who fear the over-production of wool in this country will injure the profitability of sheep raising. South America, Australia and South Africa, without woolen manufactures, have a hesitation about staying by their flocks and pushing the improvement and extension of their flocks. They raise wool to import, you say. Very well, we can afford to do so when it shall be necessary. As long, though, as we have to import from 66 to 107 million pounds, as we have in the past two years, we need have no anxiety on the subject. The increase of our population will more than keep ahead of our production of wool.

EDITOR RURAL WORLD: The Texas blue grass is not Bermuda, but a grass native to Texas—found from the center of Texas, north to Red River. It was discovered by Dr. John Torrey during Marcey's exploring expedition in 1853, about one hundred miles north of this. I began its cultivation February, 1876. I will send you some rootlets about next March. Geo. M. HOGAN, Ellis, Texas.

Don't Take any Chances on Life when Warner's Safe Kidney and Liver Cure will regulate and keep you healthy at all times.

The Mississippi Agricultural and Mechanical College is meeting with great favor. The total number of students in attendance is 300. The new dormitories are about completed, but it is evident (so says the Journal of Starkville, Miss.), that even with the building completed it will not be possible to provide accommodations for all who are seeking admission.

### An Old Doctor's Advice.

It was this: "Trust in God and keep your bowels open." For this purpose many an old doctor has advised the habitually constipated to take Kidney-Wort—for no other remedy so effectually overcomes this condition, and that without the distress and griping which other medicines cause. It is a radical cure for piles. Don't fail to use it.—Translated from the New Yorker Zeitung.

### Subduing Fires.

EDITOR RURAL WORLD: We have recently had a disastrous fire in our town, but have no steam fire engine, and not water enough to supply one if we had it. Do you know anything about the Babcock Fire Extinguisher? Is it of any value, and what does it cost? Any information concerning the matter, through the RURAL WORLD, will be thankfully received, not only by your humble servant, but possibly by hundreds of other readers of your journal. Respectfully, Kirkville, Mo. THOS. DINEMORE.

The above communication was referred to the Salvage Corps of this city as affording, in our judgment, the most reliable information, and we received the following reply:

COL. N. J. COLMAN: The enclosed note was referred to Mr. Chas. Evans, Captain of Salvage Corps, and he has referred it to me for reply. Thinking that you desire to publish an answer in your RURAL WORLD I send you the following information.

The Babcock Fire Extinguisher is now in use by all the fire departments of our large cities and has been for the past six or eight years. Many small villages use them as their only fire department. They are undoubtedly a great protection against fire, and should be in all the business blocks—either in city or town, and especially in towns not well supplied with water. The cost ranges from \$50 to \$60 each. Yours respectfully, J. M. STREIBER.

St. Louis, Jan. 29th, 1881. 104, N. 3d St.

### What a Clergyman Says About the Vitalizing Power of Compound Oxygen.

A clergyman, Rev. W. B. Hines of Waynesboro, Miss., writing to the New Orleans Christian Advocate, says, referring to an advertisement of Compound Oxygen in that paper:

"Please allow me a few words of commendation. My wife being in feeble health, and having been so for many years, I persuaded her to use it, which she did. She began very soon to improve in strength, and continued to improve, and passed through the unusually hot summer of 1878 and the fall, attending to all her domestic duties with more strength and less fatigue than she had done for ten years preceding; then during the winter nursed the sick day and night, with more than usual loss of sleep and exposure and effort, and all without breaking down, which she could not have done at any period during ten years past up to that time. In order to have some experimental knowledge of the effect of this treatment, I used it several times myself. In all my life I never used anything that produced so soon such a pleasant, healthful naturalness of condition. Gave a glow of youthful buoyancy by increasing the vital forces of the mind and body. It gave a compass and power to my voice that it never had before."

Drs. Starkey & Pelen of Nos. 1109 and 111 Girard street, Philadelphia, Pa., send their Treatise on Compound Oxygen free to all who write for it.

EDITOR RURAL WORLD: I had you herewith the premium list of the Iowa Central Poultry Association, which will hold its exhibition at Boone on the 1st, 2d, 3d and 4th of February, 1881. Also, complimentary ticket for yourself and lady. We will be glad to see you in attendance. Any notice you may see fit to make of our coming show will be gratefully esteemed. Respectfully, Oden Iowa. I. W. PACK, Secretary.

### Rescued from Death.

The following statement of Wm. J. Coughlin of Somerville, Mass., is so remarkable that we beg to ask for it the attention of our readers. He says: "In the fall of 1876 I was taken with a violent bleeding of the lungs, followed by a severe cough. I soon began to lose my appetite and flesh. I was so weak at one time that I could not leave my bed. In the summer of 1877 I was admitted to the City Hospital. While there, the doctors said I had a hole in my left lung as big as a half dollar. I expended over a hundred dollars in doctors and medicines. I was so far gone at one time a report went around that I was dead. I gave up hope, but a friend told me of Dr. William Hall's Balsam for the lungs. I laughed at my friends, thinking that my case was incurable, but I got a bottle to satisfy them, when to my surprise and gratification, I commenced to feel better. My hope, once dead, began to revive, and to day I feel in better spirits than I have for the past three years."

"I write this hoping you will publish it, so that every one afflicted with diseased lungs will be induced to take Dr. William Hall's Balsam for the lungs, and be convinced that consumption can be cured. I have taken two bottles and can positively say that it has done more good than all the other medicines I have taken since my sickness. My cough has almost entirely disappeared and I shall soon be able to go to work." Sold by druggists.

Don't Pour Alcohol on the Fire, and don't take anything that has alcohol in it to help inflamed kidneys. Warner's Safe Kidney and Liver Cure is purely vegetable, and acts directly upon the kidneys and liver.

The Marchal & Smith Organ Co., have so perfected the production of their 15 Stop Organs that they are able now to extend their low offers indefinitely. Thousands of their \$60 Organs have been sold since they first offered them, and their production in such immense quantities has enabled the manufacturers to perfect and economize their production. The offer was originally intended to introduce, and call public attention to the best organ ever made at so low price. It would seem that what was intended to benefit the public, will not only thoroughly accomplish its purpose, but also work greatly to the benefit of the producers. The offer they make in our advertising columns is well worth the earnest consideration of our readers. Taking all the responsibility to themselves, they propose to send their beautifully perfected instruments, combining power, compass tone, variety and finish, at the extremely low price of SIXTY DOLLARS. And not only that, but they send it to you to try thoroughly at your own home for fifteen days, and if not found perfectly satisfactory they refund the money and pay freight both ways, thus asking the purchaser to take no responsibility whatever. We add that no hesitation need be felt in sending the money to this firm, as we can guarantee that they will do just as they agree.

We beg to call the reader's attention to the advertisement of Dr. HARTLEY'S IRON TONIC, which will be found in another column. This medicine is a preparation of Iron and Calaya bark in combination with the phosphates, and is endorsed by the medical profession, and recommended by them for Dyspepsia, General Debility, Female Complaints, Want of Vitality, etc. It is manufactured by the Dr. HARTLEY MEDICINE COMPANY, No. 213 North Main Street, St. Louis, Mo. It is certainly the most valuable remedy in the market, and no family should fail to keep it in the house.—Toledo (Ohio) Northern Ohio Democrat.

## The Home Circle.

### "HAPPY NEW YEAR."

Out of our lives, to the mystical Past,  
The Old Year floated, in night and storm;  
And the frozen snow, like a cere-cloth, lay  
Over the palsied form.  
He went; as he came, in the hush of night;  
And his sad soul moaned as he passed  
away.  
But a twelve-month since, such a goodly king;  
Now—only a pauper, old and gray.  
With a princely hand, from his heritage,  
He scattered blessings along his train;  
Some sorrows bestowed, some loss, some tears,  
Some hours of gladness, and some of pain.  
From the shoulders galled by the heavy load,  
He lifted the burden that sorely pressed;  
To many discouraged, despairing souls  
He granted the boon of rest.

So, glad New Year! in your happy smile  
For he comes to us now, alas! no more;  
How much of our lives, in his withered arms,  
The dying Twelve-month bore!  
No mourning dirge, no peal of bells,  
But only the wild winds wailed his death.  
As he passed away; and the wintry storm  
Caught the "White King's" dying breath.  
For 'en as the tide of his life ebbed out,  
The waves of another kissed the shore!  
The New was hailed with a clang of bells—  
But the dying was old and poor!  
The dirge was lost in the shouts of joy—  
"The King is dead! Long live the King!"  
And they turned away from the frozen bier,  
To see what the New would bring.

O, glad New Year! in your happy smile  
How much of the blessing of promise lies!  
How sweetly the angel of love and hope  
Looks out of your shining eyes!  
There are promises, too, that you will not  
keep,  
And dreams too sweet to be aught but vain;  
And the velvet palm of your smiling fate  
Will deal us enough of pain.

There are grand resolves for the coming day,  
A "turning of leaves," and a higher aim;  
A putting away of forbidden things,  
New Year, in your magic name.  
There are struggles to loosen the clasp of  
vice,  
And longings and reaching for better  
things;  
And prayers from the tempted and sorely  
tried,  
For the strength that the New Year brings.

O, year so sweet in your snowy birth!  
We would that the blessed things that be,  
Should follow your day to its eventide,  
With mercy and love and charity.  
We would that the blessings of peace and health,  
May follow swift in your passing train,  
For every sorrow a healing balm—  
A smile of joy for a tear of pain.  
Sedalia, Mo., Jan. 1881. IDYLL.

### Letter from Nina.

I looked out of the window yesterday morning,  
and beheld coming up the road a young  
man in a drab hunting-jacket, with a dog  
and a gun in a leather case. The gun was in  
the case, the dog was not.

I called the household to watch out of the  
window and see if he was coming in, while I  
hastily tore off my calico cooking apron,  
dropped the chopping knife with which I had  
been chopping mince-meat, and cast a hurried  
glance in the looking glass to see if my  
collar was all right.

"Who do you think it is?" I asked, hurrying  
back to the window, just as the object of  
our gaze was entering the gate.

My mother thought it must be Western  
Echo who had migrated to southeast Mis-  
souri.

I thought if anyone had "migrated," it  
must have been Avis.

Aunt Dorcas Simlin, who had come to spend  
the day, and brought her knitting along,  
thought it must be the editor of the RURAL.  
She had just been reading an account of  
his first deer hunt.

But all our suppositions were wrong. The  
unknown proved to be one of the "types"  
who had come down to shoot a few turkeys,  
deer, etc., for Christmas.

My brother-in-law invited him down to  
stay a week, and he had lost his way. He  
had not had much success in hunting, so far.  
His dog, a very fine setter, but untrained, gets  
into a panic when he sees a squirrel or a rab-  
bit, and rushes off in terror.

Daisy, you would like him, I know—not  
the dog, but the young man. He has dark  
eyes and is just twenty-two. I don't admire  
boys myself, but I admire his gun. It is a  
breach-loading shot-gun, and puts our time-  
honored weapon entirely out of countenance.  
I am trying to save forty dollars now, to buy  
me one like it. If I can't get the premium  
clock, I will be satisfied with a new gun.

I shall be delighted to go to the cotton-  
picking, Daisy. I will invite those you men-  
tion, also Miss Ted, Critie and some of the  
others. For my escort, since you don't like  
old bachelors, though I do, I will invite  
Western Echo and Widower, Walnut, Cousin  
Charlie, Paulus, Clodhopper, Murphy, Jr.—if  
he has escaped that widow—and any of the  
rest who are not too dignified to enjoy such  
a frolic. Please meet me at the depot in  
time.

When summer comes, we will consider  
Walnut's suggestion about going to the  
mountains. Cousin Charlie would do for a  
guide, in view of his interesting travels.

Mrs. Bucknell, we are delighted to have  
you with us again. Now don't fail to meet  
with us often.

Bon Ami has not quite forgotten us, it  
seems, though we thought he had. We hope  
he and Ixion will come again before very  
long.

Western Echo wants to know the truth  
about our Mariette. Well, then, the truth is,  
according to my information, that if there  
was any smoking in the case at all, it was  
done by Mariette herself, or himself, rather.  
Now, Mariette, let us know whether you do  
really smoke or not.

You see, Western Echo, I'm too bashful  
to give a description of myself in the Home Circle.  
When you first asked me to describe  
myself, I thought you were a young lady, and  
came very near offering to exchange photo-  
graphs with you, as I was just going to have

some taken. However, you would not have  
lost much, for they were not good ones, after  
all. Why not describe yourself, so I shall  
recognize you if you happen around, when I  
am engaged in the cheerful recreation of  
driving Polly?

Walnut, I really don't like to recall those  
"curious capers" to our editor's mind. I  
don't wish to recall to his memory the letter  
he sent me, demanding which one of us was  
crazy, as he was very certain one of us was.  
I believe both of us had a narrow escape, but  
I never heard what became of the type-setters  
on that interesting occasion.

Avis, it seems you can pay a visit to other  
departments of the RURAL, though you neg-  
lect the Home Circle. How do you account  
for this? We should like to hear your cheer-  
ful notes once more.

May, I hope you will succeed in getting the  
clock. Don't fail to send your second at-  
tempt soon.

Enion, Fifty-Seven and Count de Charnay,  
come again, your letters are interesting.  
A happy New Year to all. NINA.

### Letter from Minnie F.

DEAR FRIENDS OF THE HOME CIRCLE: For  
the last week or two I have thought every  
day that I would write a letter, but each day  
failed, for it seems I have scarcely a spare  
minute to read much less to write. I have  
been quite sick since I wrote last, therefore,  
I trust the worthy editor will pardon me if  
my hand is a little shaky.

Daisy Dell, do you really think me a little  
girl? Indeed, I am not. I am larger and  
perhaps older than you think. I am twenty  
years old to-day. And now let me tell to  
you what I believe I have never mentioned  
in my letters before, I have been married  
nearly two years, and have just the sweetest  
little brown-eyed baby boy you ever saw. He  
is eight months old.

I am sorry to say I did not get the clock,  
although I wanted it so badly. I succeeded  
very well in getting three subscribers, but  
that was only one-fourth enough. And, alas!  
having got that many, I failed to get another  
one. However, I had better success with  
my club for Peterson's Magazine. I re-  
ceived as a premium a handsome autograph  
album. How I should like to have each of  
you write something in it. Will not some  
one suggest some pretty verses, suitable for  
writing on the first page of an autograph al-  
bum? Nina, I believe you write poetry oc-  
casional; suppose you give me some original  
lines.

It has been a very severe winter in this  
part of the State, and the ground is now cov-  
ered with snow to the depth of several inches.  
But, notwithstanding all the cold weather,  
Stanberry, our infant city, still continues to  
improve.

Thanks to those who have said write often.  
I have not time to write very often, but I  
shall be glad to join you occasionally when I  
can. With kindest respect for you all, I re-  
main,  
Stanberry, Mo. MINNIE F.

### Letter from Gillie Lee.

Having seen a few stray copies of the RURAL  
WORLD, I have become interested in the  
Home Circle department, and herewith pre-  
sent my application for membership.

Daisy Dell, as you are kind enough to act  
as porter for the "dear creatures," will you  
please present me to Queen Nina? I must  
confess some embarrassment at the thought  
of entering into the august presence of a  
queen; yet, believing, from the tenor of her  
correspondence, that she is entirely devoid of  
arrogance, and that kindness of heart pre-  
dominates in her composition, I come, hop-  
ing she will not refuse a plain, country girl's  
entrance into her courts. All my life I have  
breathed the pure, fresh air that comes from  
the hills and valleys of the backwoods of  
Arkansas; consequently, I am but little ac-  
quainted with "city airs" or people of great  
renown. When I remember that, within the  
Home Circle, I may meet with counts, lords,  
nobles, &c., &c., I am tempted to turn back.  
However, if Daisy Dell will promise to chap-  
erone me all the way through, I will make the  
venture. With her, Vallie, Brown Bessie,  
Violet and Schoolmarm, all very near me, I  
may pass through the ordeal without much  
travailing.

Well, Christmas has come and gone; I wonder  
how the young friends of the Circle have  
enjoyed it. I had a most delightful time visit-  
ing friends "over the hills and far away." I  
have seen Santa Claus with his budget full  
for the little folks; have seen the Christmas  
trees loaded with presents of all sorts and  
sizes; have been present at feasts where the  
tables seemed almost to groan with the  
weight of their burdens; have attended con-  
certs where the music and beauty commingled  
until the treat was almost bewildering to the  
senses. But now I am at home—"home,  
sweet home"—ready, with light heart and  
willing step, to assume the duties of the new  
year.

Hoping to meet with a welcome from the  
members of the Home Circle, I send a wish—  
"To each and all a fair good night,  
And rosy dreams and slumbers light."  
GILLIE LEE.

### Letter from Semper Fidu.

HOME CIRCLE FRIENDS: Bon Ami is right  
in regard to dancing. I am principled against  
it, on purely mechanical principles, having  
danced but two sets in my life, yet I can see  
immense good in it when conducted right.  
Religious societies are arrayed against the  
dance mainly through prejudice.

For promoting friendship and improving  
our well-being, it has few equals. Life is too  
dreary, the world is too cold, and friends are  
by far too scarce for us to discard this lin-  
gering boon.

That time is well spent which improves the  
congeniality of the soul, friendship is a flower  
far too sweet not to be cultivated. Watch it  
when in full bloom how it shines and glows  
through the windows of the soul. Oh, how  
lovely. Then cultivate it well.

We do not understand ourselves or fellow-  
men sufficiently. We should study these  
two subjects more: "Six days shalt thou la-  
bor, and the seventh day thou shalt not."  
is the basis of some of our customs. Have we  
all carefully considered this law? Does it  
not command us to labor as well as rest?  
And is it not as great a sin not to labor the  
six, as not to rest the seventh? By the letter,  
yes, aim and intend of the law, it is. We

may all be willing to rest the seventh, but  
how about working throughout the six?

"Disgraceful!" "Hired hand!" "Servant  
girl!" "She has to work for her living!"  
"Why, what would people think?" Is this a  
Christian land? Is the bible our standard?  
Do we eat by the sweat of the brow? Work  
is healthful, ennobling, invigorating, and im-  
proves the mental as well as the physical  
man; and while advocating the Sabbath, let  
us not forget the first and most important  
part of the law.

Truth asks why is the first and not the  
seventh day our Sabbath? The laws of the  
old bible were given to the Jews for a politico-  
religious government, which ended on the  
coming of Christ, who set up a spiritual  
kingdom instead. The first day was  
honored by His resurrection, and for that reason  
has been observed ever since.

SEMPER FIDUS.  
Southwest Missouri, Jan. 28, 1881.

### Letter from Sal Baxter.

Look out now, I'm coming; but you need  
not look scared, I won't hurt. I come to ask  
the Circle members and everybody else to  
help me in a great work, a work of consum-  
mate importance.

Do you want to know what it is? Well,  
I'll state the case. You see, leap year comes  
but once in four years—think of that, will  
you, once in four years—and politics comes  
with it, too. There's the rub—abrasion.

How do you suppose Jackson could have  
whipped Packinham, if Packinham had not  
been there to have been whipped? Well,  
that's just it.

When I think of the legions of fair ones  
who are now retiring war-worn and defeated  
from the field, whose life-hopes are spoiled  
or, at least, deferred for four long years, my  
heart bleeds with compassion.

In vain may Cupid fight, like Jackson, with  
powder behind cotton breastworks, but if no  
one be there to conquer no conquering can  
be done; and man, so narrow-minded, can-  
not attend at the same time to two so differ-  
ent things as politics and love.

Must those terrestrial angels, who were un-  
fortunate, mutely take the scoffs and jeers of  
Hymen? In the name of ancient maidens,  
must they? Now, what I want is a little  
change. Can't we fix it so that leap year  
would come some other time?

Oh, I can see that gushing young gallant,  
with his sparkling eyes, as he comes forward  
to propose to give leap year to politics and  
the others to the ladies. But will it be done?  
Who'll second his motion? If all were like  
him no reform would be needed; but man is  
selfish, he dislikes to lose any advantage, he  
likes to lord it over the ladies.

Come Circleists! Rouse up to the magni-  
tude of this matter. Nina, marshal your  
forces; get your General Jackson—something-  
to; work and press on to victory. Widow  
will be by you, Murphy, Jr., will trot along  
behind and bark for us, and only think how  
many will fall into line when the battle be-  
gins. Then let her boom. SAL BAXTER.

### Letter from Miss Ted.

Col. Colman has issued another protest  
against poetry.

I have never sent any of my poetry to him,  
knowing what its fate would be.

The spirit of poetry cannot be subdued. It  
suffers and grows strong.

I confess to a sympathy for those poor po-  
ets our editor consigns to oblivion. But  
earth's unappreciated poets may be heaven's  
favored minstrels.

Do not think, my poetical compatriots,  
that anything in the shape of verse is poe-  
try. Use a refined discrimination. Com-  
pare your productions with the writings of  
those whose popular judgment pronounces  
true poets, and if you "chance to fall below  
Demosthenes and Cicero," do not send your  
effusions to an editor.

Editors have superior judgment in regard  
to poetry. Their standard is high and they  
maintain it with merciless exactness. Do  
not ask your bosom friend to pass criticism  
on your verses. If he is tender of your feel-  
ings he will not tell you that the rhymes are  
execrable, that your subject is not appropri-  
ate, that you are, though unconsciously,  
guilty of plagiarism, and that your imita-  
tion is inferior to the original. An editor  
will do that. If you "just must" show your  
poem to that friend of your heart, enjoy to  
the full the honey of his praises, and then  
present him with the offspring of your im-  
agination. He will place it among his treas-  
ures, and it will, in time, become a cherished  
tradition, a mythical creation with a halo  
of glory about it.

Ambert, you think you know me? I am  
far from feeling sure that you do. However,  
your asking if I live near Monroe City makes  
it more probable. I live at five or six miles  
distance from that place. If you can give  
the initials of my name, I think we may con-  
sider that question answered. As I have not  
the least idea who you are, will you kindly  
give me some clue?

Schoolmarm, we expect you to reply to  
Bon Ami's arguments in defense of "the  
dance."

Daisy Dell, have I offended you by my  
lack of appreciation of your favorite authors?  
I acknowledge that I have not read all of  
Young's "Night Thoughts," or Camp-  
bell's "Pleasures of the Imagination." I was  
quite young when I read a portion of these  
poems, and perhaps not very appreciative.  
I have now greater age and broader views, and  
might find them more congenial. It was my  
misfortune not to hold in high estimation  
Rollins' Ancient history and other worthy  
works.

Alberta, it is so pleasant to have you back.  
I am sorry I cannot give a recipe for making  
mince pie.

It seems that we are to have a puzzle de-  
partment.

I give a sigh of relief when I think these  
puzzles do not have to be answered by me.  
Because, if they did, they would never be  
answered. No puzzle of any description  
was ever solved by me. I have a rooted ob-  
jection to working puzzles. But, doubtless,  
this department will give pleasure to many.  
I am told it is exciting to hunt out the an-  
swers to enigmas.

Daisy Dell, do you like puzzles?

May pray, do not refuse General Jaque-  
minot a seat beside you.

Violet Shaw, welcome. Please do not im-  
agine that any of us look otherwise than

kindly on all "intruders." We wish you to  
feel at home with us, and to help us make  
others feel at home.

I think we can profitably make individual  
application of Bon Ami's remarks to Enion  
especially as to quoting incorrectly. We of-  
ten make quotations which we are not sure  
are quoted correctly. We have seen them  
somewhere. Their idea has clung to the  
memory and we employ them, uncertain as  
to the precise phraseology. I believe some  
persons, when in doubt as to their authority,  
substitute Shakespeare.

What has become of many of our old  
members? Have they taken to writing poe-  
try? I suspect this to be the case.

It must have been Fannie Wood, Kit, Cleo-  
patra, Stiletto and others whom Col. Colman  
referred to in the last RURAL.

Jan. 25th, 1881. MISS TED.

### The Week's Bill of Fare.

EDITOR RURAL WORLD: I suggest to G. H.  
that the following articles of food comprise  
the stock of provision from which one may  
draw and prepare for each meal in the week,  
as fancy may dictate, viz: Wheat, corn, oats,  
potatoes, rice, beans, peas, fruit, Early Amber  
syrup, beef suet.

From the wheat make unbolted flour for  
loaf bread, gems, mush, gruel, burnis, pud-  
ding, toast, crackers, crisps, griddle cakes.

From corn make meal for bread, mush,  
gems, snow cake, pudding, oysters, snow  
bread, johnny cakes, samp. From whole  
corn make lye hominy.

From oats make meal for crisps, gruel,  
pudding, crackers. For brain and muscle,  
eat plenty of oats.

From beans make soup, porridge, pie crust,  
bake and boil.

Peas, use for soup and to boil.

From rice make bread, custard, pie, pud-  
ding and use boiled.

From potatoes make bread, flour for pies,  
cakes, pudding and jelly, bake, boil, fry, roast,  
and use for yeast.

Apples make butter, cider, pudding, dump-  
ling, pie, baked, stewed, fried, dried, raw.

Milk make porridge rolls, toast, drink.

Early Amber syrup to do all your sweeten-  
ing with. Molasses drop cake.

Beef suet makes the best and cheapest  
shortening.

Caramel, coffee and eggs.

Eat slowly, masticate thoroughly, and it  
will take less food to satisfy the appetite, and  
is a great deal better for the stomach than  
when it is suddenly filled with "chunks" of  
food the size of hickory nuts. Nature fur-  
nishes the proper fluid to digest the food. If  
drink of any kind is taken with the food, it  
weakens the digesting qualities of the chyle,  
for this reason drink nothing while eating,  
nor sooner than one hour after.

The articles named above are all good and  
substantial articles of food, and the many  
dishes, &c., that are manufactured from them  
are simple and cheap. Recipes for making  
or preparing any or all of them will be sent  
for publication in the RURAL WORLD if so de-  
sired.

To live cheaply a person does not of neces-  
sity restrict himself to one or two articles of  
food. The system requires a variety to keep  
in good, healthy condition; but good bread,  
prepared from unbolted wheat flour, together  
with the many kinds of dishes made from it,  
and oatmeal and fruit, should constitute the  
principal part of the living. Each season has  
its peculiar kinds of food, and, of course, that  
has something to do in making up a general  
bill of fare for the year.

Buy in large quantities, at wholesale, if  
possible. It never pays to make forty trips  
to buy ten bushels of potatoes, especially  
when you can buy them all at once, and  
make a saving in their cost. So with all other  
articles of food.

Wm. C. CHAZAN.

Cicero, Ind.

### GOOD DRESS.

A new caprice of fashion must be chroni-  
cled, which is evidently destined to a great  
deal of popularity, and that is the immense  
bow of ribbon to be worn at the left side of  
the belt, with home dresses and evening toi-  
lets. These bows are exceedingly handsome  
in themselves, and on the toilet have a cer-  
tain style of their own, and the merit of de-  
cided originality of effect. The ribbon used  
is about eight inches wide; moderate width  
of sash ribbon, in other words. Plain faille  
ribbon is employed, or satin ribbon, with  
lustrous black. All colors are used, pale blue,  
pale rose, heliotrope, garnet and old gold be-  
ing the favorites. The bow is made on a  
strip of foundation two inches wide, and  
three inches in length, of crinoline, wiggin,  
or whatnot. Three loops are made that are  
about five inches high, and are spread out in  
fan-shape. These stand upright against the  
side of the waist. Two smaller loops,  
about two inches in depth and gathered in  
closely, so as to narrow the width of the rib-  
bon are placed in the centre, where the three  
loops meet; one is left to stand upright, the  
other is drawn down to make the finishing  
hook of the bow. Under this knot are placed  
the ends, about ten inches in length, one of  
which is made to hang longer than the other,  
and the shorter end slightly overlapping it.  
The longer end is pointed through the middle,  
the shorter rounded off. These bows may  
match the toilet or may be of totally con-  
trasting color. They form a very effective  
"finish" for a black toilet, and "set it off"  
considerably. One yard and a half of rib-  
bon will make one of these bows. Some are  
seen of narrow ribbon, with long ends, but  
these are spurious and very ineffectual imita-  
tions of the genuine article, and have no more  
novel appearance than the ribbon belts tied  
on the side, with streaming ends, which we  
have seen for the last two or three years.  
The immense belt bows have taken, to some  
extent, the place of belt bouquets. Long fig-  
ures are now finished on the left side with  
them, instead of with a bunch of flowers.  
With ribbons that are crossed at the waist,  
the ends, particularly effective. The "bou-  
quet de corsage" on evening dresses, is now  
generally converted into a short wreath,  
which passes up the left side from the bust  
to the shoulder. With low-necked dresses and  
waists cut square, these wreaths are almost  
exclusively worn. The bodices of evening  
dresses are made pointed at the back and  
front in almost every instance. These point-  
ed waists have almost always a shirred, or  
puffed or plaited trimming down the front  
like a plastron, narrowing into the point.  
The neck is generally cut square above this  
plastron, and the opening is filled in with a  
mall or lace chemise, if desired, and fin-  
ished about the throat with a ruche, laid in  
quadruple plaits, to give it the necessary full-  
ness. A collar, standing three inches high  
in the ends, and narrowing gradually as it is  
brought down on the bust, on either side of  
the square opening, is a favorite trimming.  
The edge of this collar is clipped and turned

out on the waist, so as to make it stand up  
stiffly. It is, furthermore, wired on the up-  
per edge, to insure this end. A bias fold of  
the material is laid over the clipped edge, fin-  
ishing the collar on the outside. If the  
dress is made of plain and brocade mate-  
rial, the brocade stuff is used for the out-  
side of the collar, the plain for the lining,  
the wire being sewed between the two. The  
full ruffle of lace is placed inside the collar,  
when the dress is open. Often these collars  
are the prettiest when entirely filled in  
with a jabot of lace, which can be carried  
down to the bottom of the bodice. A full  
huche of the same lace is sewed around  
the neck of the dress, which may be finished  
with a band instead of a standing collar.  
The effect, quite Elizabethan, of these stand-  
ing collars, with the soft cascades of lace fill-  
ing them in completely, is exceedingly  
pretty.

### VARIOUS IMPROVED GARMENTS.

The "combinations" consist of the new  
models constructed upon hygienic principles,  
with two, and even three, garments united in  
one, as in the emancipation waist, which has  
not only become very popular here, but has  
attracted the notice of European fash-  
ion-writers, and was most favorably men-  
tioned in *The Queen*. This waist  
takes the place of the chemise, corset and  
corset cover, and is so arranged that the  
bands of the skirts do not lay over one an-  
other, and, although fitting the form closely,  
leave every nerve, vein and blood-vessel to  
act freely. Another model of the waist  
is made with lacings under the breast be-  
tween the second and third seams, so that it  
can be enlarged, making it a most comfort-  
able and useful garment for married ladies  
and invalids.

Another is called the "improved" chemise,  
which is cut high in the neck, and forms a  
short undershirt, a chemise and a high-neck-  
ed corset-cover. The chemise-drawers, also  
high in the neck, are really nothing more  
or less than drawers with full corset covers,  
while the princess undershirt is a petticoat  
combined with corset cover.

The trained petticoat is very little in de-  
mand, for when the skirts are long the train  
is always trimmed inside, which is far bet-  
ter, as underskirt trains will not keep gracefully  
in their place; therefore, the simple yoke  
short undershirt is in great favor. Still,  
that is not needed when the combinations  
are not used, unless it may be used for an  
undershirt.

In night-dresses, the yoke and the sacque  
are favorite models, and these may be trim-  
med in twenty different styles and made ap-  
pear as if various designs were used, when  
in reality only the garniture is varied.

The models for children are very stylish,  
and most of them can be worn for at least  
two more seasons without being considered  
old; indeed, all really quaint, graceful styles  
hold their places in popular favor, when stiff,  
cumbersome garments are discarded in one  
season. A really stylish skirt to be worn  
with a basque, is called the "minette." It  
is plain and gored, and to be trimmed with  
narrow box-pleatings on the edge, with broad  
kiting in front and sides. The apron over-  
skirt is shirred in front and draped on the  
sides, while the long back is shirred at the  
top, and finished with tucks and knife-pleat-  
ings.

The "musette" dress is just the model for  
making up cambrics and any of the summer  
fabrics used for children, and may be self-  
trimmed or richly decorated with lace and  
inserting or embroidery. It is very simple  
and graceful in design, and is cut after the  
Gabrielle style, half-fitting, with side forms  
back and front, extending to the shoulders.  
It is cut below the waist, at about the depth  
of a cuirass basque, and has a deep "Span-  
ish" flounce added to make it long enough.

### FASHIONS FOR LITTLE FOLKS.

The late winterstyles for children are very  
handsome, and the ingenious mother or home  
dress-maker can very easily copy them in  
costumes for early spring wear. The founda-  
tions seem to be only the princess, the close-  
fitting sacque and the Gabrielle, and over  
are placed draperies in every imaginable con-  
ceit, after Roman, Persian and Grecian, and  
Egyptian models, and in puffs, shirrs and  
cascades, illustrating the genius of our Eu-  
ropean and domestic artists in the construc-  
tion of robes and costumes for misses and  
children.

A charming dress for spring wear has the  
Gabrielle slip made of pale-blue faille, trim-  
med at the lower edge with two tiny rows of  
side pleatings. Over this is a shirred gar-  
ment of silvery white and blue brocade,  
which forms a kind of a low-necked apron,  
the front and back are shirred, and the plain  
portion passes under the arms. Gores are  
let into this dress below the waist line to give  
extra fullness necessary for the shirring,  
which finishes the lower portion about the  
trimming of blue and tinsel fringe. In some  
instances the lower portion of this overgar-  
ment is finished with knife pleating of silk,  
in others with handsome fringes, and still  
in others with any of the fashionable laces.

One of the newest models for a little girl  
is of serge and Madras, with a Jersey elastic  
body, buttoned behind, with collar and cuffs  
of velvet, trimmed with gold braid. The  
overskirt of this imported dress is gathered  
in

## Sparkling Soil.

Perhaps a brief description of this land of gems may interest your readers. This place is about seven hundred miles inland from Cape Town, and about five hundred from Port Elizabeth. Torsesh Kimberly from Cape Town one has to travel through a country called the Great Karroo, a barren, rocky tract, with scarce any signs of life in it. A more desolate region can scarcely be found. I do not think I saw ten acres, for a distance of two hundred miles, that could possibly be plowed; and, judging from appearances, I think a rail, to travel through the Karroo would need a knapsack on his back well laden with provisions to sustain life on his journey, unless he was of near kin to Dr. Tanner. Kimberly, like its surroundings, is a barren waste, very unpleasant for a family home. Most of the country here is worthless for farming purposes. Water is scarce, wood is very scarce. It is brought here by ox-teams from a distance of a hundred miles, and sold on the market at auction for from \$25 to \$50 per load, according to size and quality. None of it would be merchantable in your city. Old dead wood, dug up by the roots and brought to market roots and all sells from \$25 to \$30 per load; and a load of live wood (unsplit), containing one and a half cords, sells for \$40 to \$50 per load. Potatoes grow to about the size of English walnuts; beets, carrots, onions, cucumbers, and lettuce are luxuries nearly unknown here. The dust and dirt are fearful. I can not describe or do justice to the subject. If fills your eyes, nose, ears, and muddies your hair and whiskers; and as for clothes, the natives, who wear none, have the advantage, as the water is hard and miserable, full of dirt, and sells for sixty cents per barrel for washing purposes; and as for drinking, something stronger is the common beverage here. But the diamonds! It is truly a land of diamonds. Already over \$125,000,000 worth have been discovered. In the late war one of the chiefs (Sachani) offered a quart measure full of diamonds for a cannon. Claims of thirty-one square feet having sold for \$49,000 per claim. The mines are all worked by large companies. The largest is a French company. The manager informed me that their expenses were \$70,000 per month. They take out of their claims four hundred loads of diamondiferous earth per day, worth on an average \$14 40 per load. There are several large companies in the mine. A mile and a half from here is another mine called Old De Beers' mine. Three miles further there is another one called DuTait's Pan, and one mile from that is another called Bulpantain. All these are extensively worked by large companies. Bulpantain mine was originally a farm, on which was built a brick house, and on the discovery of diamonds the house was found to contain the precious gems in the plaster used to lay the brick and in the plastered walls, while the children played with what they called "the shiny stones." There has recently been a diamond mine discovered eight miles from here called Oliphant's Pan. Claims to the number of nine hundred have been surveyed and sold in that mine, and people here are wild with speculation. An acquaintance of mine bought claims in Jager's Pan, containing him, forty miles from here, which cost him \$700, and in a short time he was offered \$32,000 for said claims. It seems that men are like bubbles on the world over. Some go up and explode financially, the exploding portion being by far the most numerous. The penalty for buying a diamond of a negro is five years' imprisonment at hard labor and a fine of \$2,000 for the first offence, and ten years for the second. And yet the temptation is so great that out of a population of 16,000 there are over 600 now in prison for illicit diamond buying and diamond stealing. Some of the prisoners are worth \$40,000 to \$200,000. Surely, the way of the transgressor is hard.

## Health Column.

## CONSUMPTION.

Consumption usually begins with a slight, dry cough in the morning, then, on going to bed, more and more frequent, with more and more phlegm, increasing debility, thinness of flesh, shortness of breath and quickening of pulse. In fatal cases, its average course is about two years; hence the importance of arresting the disease at as early a stage as possible; and the sooner rational means are employed for this purpose, the greater the chances of success.

The disease is owing to an irritation commencing in the throat and extending to the lungs, so that their action is interfered with, and the blood does not receive sufficient oxygen to purify it. The first thing to be done is to remove the obstruction, which is the irritation or congestion of the lungs. Four ounces of glycerine, two ounces of alcohol, two ounces of water and one grain of morphia makes an excellent mixture for relieving the cough. It should be taken in doses of two teaspoonfuls every two hours until the cough is relieved.

The chest, just below the neck should be rubbed with tartar-emetic ointment every morning over a space as large as the hand, until a thick crop of sores is brought out; then rub the ointment between the sores to bring out a new crop. Meantime the patient should take regular and vigorous exercise in the open air. There is nothing that equals horseback riding as a remedy for this disease. If a consumptive were to "live in the saddle" and sleep out of doors, taking care to keep the feet dry and warm, and to live upon good nourishing food; in short to "rough it," he would recover his health in a few months, even if the disease had made considerable progress. The trouble is that it requires a strong will to carry out so severe a course, in spite of the long and debility which it does an invalid to quiet despondency.

The most marked sign of lung disease is emaciation; and the most positive indication of returning health is increase in weight.—Hall's Journal of Health.

## Poison Ivy.

The poison ivy is very poisonous to some persons; they are poisoned by not touching it at all, or even, it is said, passing near it, while others may handle it without being afflicted by the contact in the least. The poisonous property of the plant is owing to a volatile acid; its effect is an acute inflammation of the skin, often accompanied by a great swelling. The effects remain sometimes for months before the poison is completely removed from the system. The usual remedies are cooling purgatives and an external application of lead water. An application of a solution of hops has been known to prove an effectual remedy when all other remedies failed. The plant has sometimes been mistaken for Virginia creeper, to which it bears no slight resemblance. The distinguishing feature is that the poison ivy has three leaflets, whereas the Virginia creeper's leaves have five leaflets. Persons have been poisoned by mistaking the poisonous for the harmless species. This plant is of the genus *Rhus* sumac. There is also an upright plant that is poisonous.

## The Dangers of Childhood.

Though many children suffer and die from an insufficient quantity of food, many more suffer severely and many die from its improper quality, which renders it strictly no food at all. To this cause may be traced innumerable cases of wasting in children—rickets, with all its train of hideous deformities—stunted growth and crooked limbs—disturbances of stomach and intestines, and many affections which form a vast chapter in the history of children's diseases. It is by no means uncommon for a doctor to hear from the mother of a miserable and wasted child, which numbers its age by months only, that its appetite is excellent, and even voracious, and, on inquiry to learn that it shares the family diet of pork and potatoes, eating "whatever we do," as the mother says, with an air of complacent satisfaction that she at least has no share in the production of her infant's malady. Less glaring beaches of physiological law are still more common, and we find many children diseased and dying, starved from being prematurely stuffed with flour and bread and various articles of farinaceous material; grouped together under the ironical name of "Food for Infants."—Sanitarian for December.

## The Lemon Juice Cure.

Somebody, who appears to know all about it, writes positively that it will draw the sting out of hot weather, not only for this time, but for months to come, to understand the right use of lemons. Most people know the benefit of lemonade before breakfast, but few know how it is more than doubled by taking another at night also. The way to get the better of a bilious system without blue pill or quinine is to take the juice of one, two or three or more lemons, as the appetite craves, in as much ice water as makes it pleasant to drink without sugar, before going to bed. In the morning on rising or at least half an hour before breakfast, take the juice of one lemon in a goblet of water. This will clear the system of humors and bile, with mild efficacy, without any of the weakening effects of calomel or congress water. People should not irritate the stomach by eating lemons clear; powerful acid of the juice, which is almost corrosive, infallibly produces inflammation after a while, but properly diluted, so that it does not draw or burn the throat, it does its full medical work without harm; and when the stomach is clear of food has abundant opportunity to work on the system thoroughly.

## Cure for Whooping Cough.

This has been considered one of the few incurable diseases. Physicians usually say that it must take its course; two weeks of incubation preceding the spasms, four weeks of gradually increasing number and power of the paroxysms and from six weeks to six months of restoration to health. Often this malady is followed by pneumonia, bronchitis or extreme physical exhaustion, ending in lingering illness or death. When the paroxysms are very violent, patients often rupture blood vessels or the delicate membranes of the ear, eye or other organs. The disease is increasing in virulence. The number of deaths in New York city has reached 489; in the city of London the appalling number of 6,000 annually. It has been known to some of the medical profession that persons suffering from whooping cough, asthma, bronchitis, catarrh, croup and the other zymotic diseases, experienced quick relief, and sometimes rapid cure, by breathing the vapors arising from the open purifying boxes at gas works. This fact was discovered by a French physician in 1865, and published. Shortly after, the gas works of this country were visited and now it is quite common to see several patients gathered about a purifying box inhaling the strong vapors.

The secret of this relief has recently been discovered. A Providence (R. I.) chemist procured the condensed hydrocarbon deposited in the bottom of the purifying box, and by analysis ascertained it to be cresoline (C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub>O), a coal tar product somewhat akin to carbolic acid, but possessing far greater power in destroying the germs of contagious diseases. Vaporized in a closed room, the paroxysms in pertussis (whooping cough) are checked immediately, and ordinarily in five nights the patient entirely recovers.

Persons suffering from chronic asthma and unable to recline at length, can assume a recumbent position and sleep peacefully all night. Bronchitis and croup are quickly relieved. Diphtheria and scarlet fever are not only often cured, but it is impossible for these dreaded diseases to be communicated to others.

The contagious germs deposited in bedding, carpets, clothing, wall paper, or floating in the air, are instantly destroyed by the powerful vapor of cres-

oline, which is carried in the air everywhere. A sick room—indeed the entire house—can be instantly perfumed with exact fragrance of cologne, Florida water, bay water, etc., the odor remaining for hours.

These results are made possible through the use of a very ingenious but simple metal vaporizer, which consists of a stand six inches high, supporting a cup which contains a half ounce of liquid. Under this cup is a disk, against which the direct rays of heat given off by a toy kerosene night lamp strike, and pass thus modified to the bottom of the cup. This produces perfect volatilization.

## The Poultry Yard

## Eggs in Winter.

Every farmer who knows anything knows that it pays to have eggs to sell in winter when the price is anywhere from 20 to 40 cents a dozen, but not one farmer in twenty takes the slightest pains to persuade his hens to lay in cold weather. They grumble and growl about their fowls, and are eternally rehearsing the same old story about the perverseness of hens who will "lay well enough when eggs are cheap, but will quit entirely as soon as the price goes up.

One man declares that he "don't take much care of his hens in winter, because they don't lay enough to half pay for what they eat," never once thinking that the failure to produce eggs results from lack of proper food, shelter and care. Many farmers who use common sense in caring for their horses, cows, sheep, and swine, exhibit a wonderful amount of ignorance and stupidity when it comes to managing poultry, and the flocks of twenty or thirty hens instead of being a source of "revenue" barely pay their way in summer, and eat their "heads off" in winter. Whose fault is it? Not the hens' surely. A hen can not run an egg machine without a supply of raw material to work on any more than the Israelites of old could make bricks without straw. What would these farmers think of a man who sheltered his cow in a rail pen, fed her on straw, let her go without water, and then growled because she did not produce as much milk as when on clover pasture in June? To put it mildly they would call him a fool. Draw your own conclusions.

A medium-sized egg contains 127 grains of albumen, 94 grains of fat, 13 grains of ash and 666 grains of water. To those who have never "studied up" these things the amount of water seems large, but it is less than in beef, while the amount of fat and muscle forming material is greater than in fat beef. Now is anybody fool enough to imagine that hens can manufacture such a highly nutritious article of food unless they are provided with plenty of raw material in the shape of egg-making food, and a comfortable house to work in?

It is just as easy to have eggs to sell in winter as in summer, and a great deal more profitable. Don't tell me "it ain't natural" for hens to lay in winter. It is just as natural for hens to lay in winter as it is for cows to give milk in winter. Give your fowls comfortable houses and with proper food and care they will lay, because they cannot help themselves.

No live-stock on the farm will pay as well in winter as a flock of hens properly managed. Farmers, look to this, turn over a new leaf with the New Year, and give care to your stock, and you will never have cause to complain that hens "eat more during the winter than all the eggs they lay in a year would pay for."—Fanny Field in Prairie Farmer.

## The Apiary.

## Wintering Bees.

Seventy-five per cent. of the bees that are lost during the winter die before the first of February. During the forepart of the winter they consume very little; even those that are allowed to starve later in the season usually have sufficient to last them until about that time. It is a shame and disgrace for any one to allow their bees to starve to death; just as much so as to starve a horse or cow, especially when so little trouble would prevent it. Liquid food cannot well be given them at this season of the year. Candy made from coffee "A" sugar is just as good, or really better than syrup, and is much handier fed. Put sugar sufficient to make what candy you need in a tin pan with just enough water to dissolve the sugar nicely, more water will do no harm, only it will have to be evaporated by boiling. Care must be taken not to allow it to burn while baking. If burned it will be fatal to the bees. Allow it to boil until it begins to wax; test by dropping a little at a time in a cup of cold water. As soon as sufficiently cooked, remove from the fire, stir until the mass begins to turn white, to granulate; pour into plates to cool. If preferred the candy can be made directly in a brood frame to hang in the hive; by laying an empty frame on the table, or a flat surface, holding the frame well down to keep the warm candy from running under as it is being poured in. We prefer to have ours in broken pieces. We can then give what is needed without disturbing the colony but very little, if at all. Go to those colonies you think are weak in stores; raise the cloth lay a few pieces of candy on the frames over the cluster, covering up all close and warm. Should you be so unfortunate as to have honey boards over the frames, they should be removed, for the bees cannot travel any distance from the cluster after food during cold weather; so the candy must be placed in close contact with the cluster. Bees in close hives can be fed by carrying the hives in the cellar, or in a dark warm room; invert the hives, pushing the combs a little apart pushing the pieces of candy down among the bees, covering the mouth of the hive with a cloth.—Indiana Farmer.

## Atmospheric Honey Dew.

In the fall, when the leaves have lost all of their sap, and the insects or plant lice are all gone, I have seen honey dew on white oak, hickory and chestnut leaves so plentiful that bees were feeding upon it. Now we know the elements of sugar are taken from the earth and air by the growing plants, sugar cane, beets and sugar maple; that is held in solution by the water or the juices of the plant that contains them, that a moist atmosphere is most favorable to their growth and abundant formation. I think that the great source of that honey dew on which bees feed is found in the fact that, under certain conditions of the atmosphere, during certain seasons of the year, the elements of sugar, carbon, hydrogen, and oxygen come together in proper proportion with water and this sweet substance is formed.

We may never know how this is done, but this does not overthrow the theory. We do not know just how the sugar maple extracts the elements of sugar from the air and soil on which it feeds, while the poison oak vine that produces a deadly poison. Yet, it is nevertheless true.

Many of nature's mysteries are still unsolved by man, and may always remain so. It does not seem from the fact that honey dew is found so late after both the sap and insects are all gone that this is the true source of the production of honey dew. Could not some of our chemists take carbon, 24; hydrogen, 2; oxygen, 22, and two equivalents of water, and see what conditions of heat, light, or other agents are necessary to unite them into sugar? We must look to the great laboratory of nature for the true source from which almost every good comes; and it is certainly more pleasant to the lover of good honey to believe that it is formed by direct natural laws than to think it is the secretion of offensive insects.

## A CARD.

To all who are suffering from the errors and indiscretions of youth, nervous weakness, early decay, loss of manhood, etc., I will send a receipt that will cure you, FREE OF CHARGE. This great remedy was discovered by a missionary in South America. Send a self-addressed envelope to the Rev. JOSEPH T. INMAN, Station D, New York City.

Canvassers make from \$25 to \$50 per week selling goods for E. G. Ridout & Co., 10 Barclay St., New York. Send for catalogue and terms.

Sheep bitten by dogs, horses cut on barbed wire fence. Use Stewart's Healing Powder.

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Ship your Wheat, Corn, Oats, Tobacco, Cotton, Wool, Hides, Broom Corn, Seeds, etc., to W. M. PRICE & CO., St. Louis, Mo.

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For any case of Blind, Pleading, Drunken, or Proving Falsely that the Black Pill is a cure for any disease.

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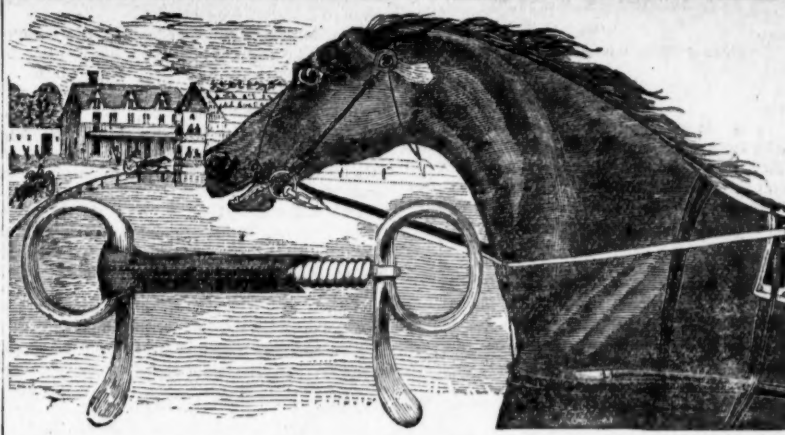
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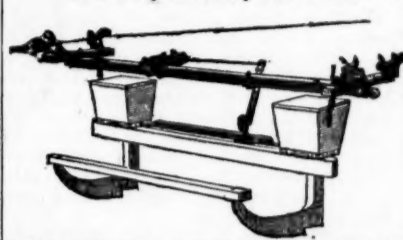
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Only Double Ring Invented. CHAMPION.

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No sharp points in the flesh to cause irritation and soreness, as in case of rings that close with the joints in the flesh and produce sores of the nose.

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This is the only single ring ever invented that closes on the inside of the nose. It overcomes which close with the joints together in the flesh, causing it to decay and keep the hog's nose sore.

It is durable in all its parts. Take no other.

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I've often heard my mother talk of him,